
CANADA WATER MASTERPLAN



Transport Assessment
Part 1 of 7

May 2018

Arup

1.	Introduction	2
2.	Planning Policy.....	4
3.	Existing Site.....	15
4.	Canada Water Strategic Transport Study	25
5.	Existing Transport Conditions.....	28
6.	Proposed Transport Improvements and Future Baseline.....	62
7.	Proposed Development	81
8.	Trip Generation and Mode Split.....	93
9.	Transport Impacts	118
10.	Intervention Testing	150
11.	Travel Plan	162
12.	Deliveries and Servicing.....	164
13.	Construction	166
14.	Conclusions.....	168

1. Introduction

- 1.1.1 This Transport Assessment (TA) has been prepared by Arup and is submitted in support of a hybrid planning application for the Canada Water Masterplan. The hybrid planning application is made in relation to land bounded by Surrey Quays Road to the north, Lower Road (A200) to the west, Redriff Road (B205) to the south and Quebec Way to the east (the "Site") on behalf of BL CW Holdings Ltd, a subsidiary of British Land Company Plc ("The Applicant"), hereafter referred to as "British Land". The hybrid planning application is formed of detailed development proposals in respect of Plots A1, A2 and K1 for which no matters are reserved ("Detailed Proposals"), and outline development proposals for the remainder of the Site, with all matters reserved ("Outline Proposals"). The Detailed Proposals and Outline Proposals together are referred to as the "Development".
- 1.1.2 The Development comprises the comprehensive redevelopment of the Surrey Quays Shopping Centre, former Harmsworth Quays Printworks and Surrey Quays Leisure Park sites, former Dock Offices Courtyard, former Rotherhithe Police Station and land at Roberts Close. The Development will provide new retail, office, leisure and community floorspace along with residential dwellings. The Development will also provide significant, high quality public realm, including a new Town Square, a new High Street and a public park.
- 1.1.3 The purpose of this TA is to assess the effect of the Development in terms of traffic and transport impacts. Separate Transport Statements have been prepared in parallel for each of the Plots that form the Detailed Proposals.

1.2 TRANSPORT ASSESSMENT STRUCTURE

- 1.2.1 Following this introductory chapter, the Transport Assessment is structured as follows:
- Chapter 2 outlines the policy context for the Development and the guidance that has been referenced in preparing the Transport Assessment;
 - Chapter 3 sets out the site location, existing site uses and committed development proposals either on or adjacent to the Site;
 - Chapter 4 explains the background to the Canada Water Strategic Transport Study undertaken by Transport for London (TfL), Southwark Council and British Land, which is used to inform the Transport Assessment;
 - Chapter 5 identifies the existing transport context, including facilities for pedestrians, cyclists, public transport users and drivers;
 - Chapter 6 sets out the future baseline conditions without the Development, outlining committed and proposed transport improvements and the impacts of background growth;
 - Chapter 7 outlines the Development proposals, including the land uses and floor areas for which permission is being sought together with physical provision that is proposed to support transport and access within the Site;
 - Chapter 8 explains the approach that has been used to assess the transport impacts of the Development and the consequent assessment of trip demands associated with it;

- Chapter 9 sets out the transport impacts of the Development, including the physical provision contained within the design proposals explained in Chapter 7, against the future baseline outlined in Chapter 6;
- Chapter 10 tests the measures which are proposed to mitigate the impacts shown in Chapter 9, in addition to the provision included within the Development proposals;
- Chapter 11 explains the Framework Travel Plan that will be used to mitigate development impacts and embed the transport strategy in a way that filters down to site users;
- Chapter 12 sets out the approach to deliveries and servicing;
- Chapter 13 explains the approach to construction and the assessment of the construction stages of the Development; and
- Chapter 14 summarises the conclusions of the Transport Assessment.

1.3 PRE-APPLICATION CONSULTATION

- 1.3.1 Community consultation on the Canada Water Masterplan started in Spring 2014, and further public consultations have been held on a regular basis as the Masterplan has developed. There have been over 40 events to date, with over 3,000 people involved, most recently in January 2018.
- 1.3.2 Through these public consultations transport has been a key theme of discussion, and the transport strategy that underpins the Development has taken on board community feedback, as well as comments from other key stakeholders.
- 1.3.3 Most significantly, Arup and British Land have held a wide range of pre-application discussions with Southwark Council and TfL and where relevant, these have been referenced in the Transport Assessment.
- 1.3.4 Formal pre-application meetings were held with Transport for London and Southwark Council in December 2017 and February 2018, and the advice received as a result of these meetings is included in Appendix A.
- 1.3.5 In addition to these formal meetings, a large number of meetings on specific transport topics have been held with Southwark Council, TfL and the Greater London Authority (GLA) during the development of the application proposals.
- 1.3.6 Further meetings have also been held to progress the Canada Water Strategic Transport Study (STS) which is being undertaken by TfL and Southwark Council and is discussed in more detail in Chapter 4. The Canada Water STS looks to assess the impact of development across the whole of the Canada Water Opportunity Area, including proposals by British Land and by other developers such as Notting Hill Housing / Sellar and Kings College London. A number of further transport studies have arisen as a result of work on the STS, particularly into how conditions at Canada Water and Surrey Quays stations can be improved. These are being taken forward by TfL. British Land is committed to a continued close working relationship with TfL and Southwark Council to help progress and facilitate these studies and their outcomes.

2. Planning Policy

This section outlines the relevant national, regional and local transport policy and planning guidance documents which form the context for the Development proposals.

2.1 NATIONAL POLICY

National Planning Policy Framework (DCLG, 2012)

- 2.1.1 The Department for Communities and Local Government (DCLG) published the National Planning Policy Framework (NPPF) in 2012. The NPPF replaces the previous planning policy guidance (PPG) and planning policy statement (PPS) documents.
- 2.1.2 With specific reference to transport, the NPPF states that “The transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel”.
- 2.1.3 The NPPF also indicates that “...developments should be located and designed where practical to:
- *Accommodate the efficient delivery of goods and supplies;*
 - *Give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;*
 - *Create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones;*
 - *Incorporate facilities for charging plug-in and other ultra-low emission vehicles; and*
 - *Consider the needs of people with disabilities by all modes of transport”.*
 - *The NPPF indicates that “a key tool to facilitate this will be a Travel Plan. All developments which generate significant amounts of movement should be required to provide a Travel Plan”.*
- 2.1.4 In March 2018 revisions to the NPPF were consulted on. This included changes to the structure of the transport chapter, as well as providing clarity that new developments should prioritise pedestrian and cycle movements through their design, followed by access to high quality public transport.

2.2 REGIONAL POLICY

The London Plan (Greater London Authority (GLA), March 2016)

- 2.2.1 The London Plan’s transport policies are primarily intended to support delivery of the objective that London should be “a city where it is easy, safe and convenient for everyone to access jobs, opportunities and facilities with an efficient and effective transport system which actively encourages more walking and cycling...”.
- 2.2.2 Policy 6.1 indicates that “the Mayor will work with all relevant partners to encourage the closer integration of transport and development...” by:

-
- *“Encouraging patterns and nodes of development that reduce the need to travel, especially by car...;”*
 - *Seeking to improve the capacity and accessibility of public transport, walking and cycling, particularly in areas of greatest demand – boroughs should use the standards set out in Table 6.3 in the Parking Addendum to set minimum cycle parking standards;*
 - *Supporting development that generates high levels of trips at locations with high public transport accessibility and/or capacity, either currently or via committed, funded improvements including, where appropriate, those provided by developers through the use of planning obligations...;*
 - *Supporting measures that encourage shifts to more sustainable modes and appropriate demand management; and*
 - *Promoting walking by ensuring an improved urban realm”.*
- 2.2.3 Policy 6.3 states that *“development proposals should ensure that impacts on transport capacity and the transport network, at both a corridor and local level, are fully assessed”*. The policy also indicates that *“transport assessments will be required in accordance with TfL’s Transport Assessment Best Practice Guidelines for major planning applications. Workplace and/or Residential Travel Plans should be provided for planning applications exceeding the threshold in, and produced in accordance with, the relevant TfL guidance. Construction logistics plans and delivery and servicing plans should be secured in line with the London Freight Plan and should be co-ordinated with travel plans”*.
- 2.2.4 Policy 6.9 states that *“the Mayor will work with all relevant partners to bring about a significant increase in cycling in London, so that it accounts for at least 5% of the modal share by 2026. He will:*
- *Identify, promote and complete the Cycle Super Highways...; and*
 - *Implement the central London cycle hire scheme and identify potential sites for expansion and/or additional standalone schemes in outer London”.*
- 2.2.5 The policy also states that *“Developments should:*
- *Provide secure, integrated and accessible cycle parking facilities in line with the minimum standards...;*
 - *Provide on-site changing facilities and showers for cyclists;*
 - *Facilitate the Cycle Superhighways...; and*
 - *Facilitate the central London cycle hire scheme”.*
- 2.2.6 Policy 6.10 indicates that *“the Mayor will work with all relevant partners to bring about a significant increase in walking in London, by emphasising the quality of the pedestrian and street environment, including the use of shared space principles – promoting simplified streetscape, de-cluttering and access for all”*. In terms of planning decisions, the policy states: *“Development proposals should ensure high quality pedestrian*

environments and emphasise the quality of the pedestrian environment and street space”.

- 2.2.7 Policy 6.13 (A) indicates that *“the Mayor wishes to see an appropriate balance being struck between promoting new development and preventing excessive car parking provision that can undermine cycle and public transport use”.*

Draft New London Plan (GLA, Consultation 2017)

- 2.2.8 Public consultation on a new draft London Plan commenced in December 2017, with the aim of the Plan undergoing an Examination in Public in late 2018 ahead of adoption in Autumn 2019.
- 2.2.9 The draft New London Plan (“Draft Plan”) outlines the Mayor’s proposed approach to spatial development in London, promoting a new strategy called ‘Good Growth’ which aims *“to re-balance development in London towards more genuinely affordable homes for working Londoners to buy and rent.”* The Draft Plan also intends to revolutionise travelling around London by *“enabling a boom in active travel, with walking and cycling becoming the main mode of choice for millions of Londoners”.*
- 2.2.10 Chapter 10 of the Draft Plan relates directly to transport and presents a number of key policies.
- 2.2.11 Policy T1 states that *“all development should make the most effective use of land, reflecting its connectivity and accessibility by existing and future public transport, walking and cycling routes”.*
- 2.2.12 Policy T2 advocates for the Mayor’s Healthy Streets Approach to be applied to all types of land uses. Developments will be required to:
- *“Demonstrate how they will deliver improvements that support the ten Healthy Streets Indicators in line with Transport for London guidance”;*
 - *“Reduce the dominance of vehicles on London’s streets whether stationary or moving”;* and
 - *“Be permeable by foot and cycle and connect to local walking and cycling networks as well as public transport”.*
- 2.2.13 Policy T4 states that *“development proposals should reflect and be integrated with current and planned transport access, capacity and connectivity”,* and where *“the ability to absorb increased travel demand through active travel modes has been exhausted, existing public transport capacity is insufficient to allow for the travel generated by proposed developments, and no firm plans and funding exist for an increase in capacity to cater for the increased demand, planning permission may be contingent on the provision of necessary public transport and active travel infrastructure”.*
- 2.2.14 Policy T5 promotes cycling as a key mode in relation to the future development of London. To support this *“development proposals should help remove barriers to cycling and create a healthy environment in which people choose to cycle”.*
- 2.2.15 Policy T6 sets out parking standards for new development in London and states that *“car parking should be restricted in line with levels of existing and future public transport accessibility and connectivity...Car-free development should be the starting point for all*

development proposals in places that are (or are planned to be) well-connected by public transport, with developments elsewhere designed to provide the minimum necessary parking ('car-lite')".

2.2.16 Policy T7 addresses freight and servicing. Opportunity Area Planning Frameworks, such as Canada Water, should seek to:

- *"Reduce freight trips to, from and within these areas";*
- *"Coordinate the provision of infrastructure and facilities to manage freight and servicing at an area-wide level"; and*
- *"Reduce emissions from freight, such as through sustainable last-mile schemes and the provision of rapid electric charging points for freight vehicles".*

2.2.17 Policy T9 states that *"[planning] obligations and contributions may include the provision of new and improved public transport services, capacity and infrastructure, the expansion of the London-wide cycle networks and supporting infrastructure, and making street pleasant environments for walking and socialising, in line with the Healthy Streets Approach"*.

Mayor's Transport Strategy (GLA, March 2018)

2.2.18 The new Mayor's Transport Strategy (MTS) was published in March 2018, and compared to previous versions places a greater focus on walking, cycling and healthy streets. The strategy states the future of London's transport system depends on a modal shift to increased cycling and walking. This can be achieved by improving street environments to make walking and cycling the most attractive modes for short journeys. Walking and cycling are also more space efficient modes than the car, providing a long-term solution to London's congestion problems.

2.2.19 The key target in the MTS is for 80% of Londoners' trips to be on foot, by cycle or public transport by 2040. The quality of London's streets defines the quality of their journey and 80% of trips in London solely occur on its streets. The process for improving London's streets is the 'Healthy Streets' approach which contains ten indicators, all of which can be attributed to benefiting the walking and cycling environment.

2.2.20 The MTS identifies Inner East London, which includes Canada Water, as an area for significant growth up to 2041. The MTS identifies that further investment is required to support this growth as well as existing communities. Transport proposals for the area include fleet replacement and improved services on the DLR, a Jubilee line upgrade, improvements to London Overground services and improved bus and cycle networks.

2.2.21 Despite these upgrades the key focus is on inducing a behaviour change that encourages people to walk and cycle short and medium length journeys. The Thames currently inhibits this as it is a barrier for cycling and walking but proposals for a pedestrian and cycle bridge from Rotherhithe to Canary Wharf are currently being developed. Any such bridge in the area will need to be supported by wider improvements to walking and cycling infrastructure to optimise the change in travel behaviour.

Healthy Streets for London (GLA, 2017)

- 2.2.22 This document explains how adopting the 'Healthy Streets' approach will assist in improving air quality, reducing congestion and making London's diverse communities become greener, healthier and more attractive places in which to live, play and do business.
- 2.2.23 It sets out 10 evidence-based 'Healthy Streets Indicators' of what makes streets attractive places which should be used when working towards creating a healthier city.
- 2.2.24 The 10 indicators are summarised below:
- Pedestrians from all walks of life – London's streets should be welcoming for everyone;
 - People choose to walk, cycle and use public transport – this shift to healthier ways to travel will only happen if we reduce the dominance of motor traffic and improve streetscape experience;
 - Clean air – this benefits everyone and reduces unfair health inequalities;
 - People feel safe – everyone should feel safe at all times on London's streets;
 - Not too noisy – less motor traffic noise will directly benefit health, street environment ambience and encourage active travel and human interaction;
 - Easy to cross – by removing physical barriers, fast moving or heavy traffic and enabling more direct routes, streets will be more permeable;
 - Places to stop and rest – more places to stop and rest will benefit everyone including local businesses by making streets more attractive places to spend time in;
 - Shade and shelter – protection from high winds, heavy rain and direct sun will enable everyone to use London's streets, despite the weather;
 - People feel relaxed – without the dominance of motorised traffic and with clean, well-maintained, clutter-free footways and cycleways, people will feel more comfortable; and
 - Things to see and do – attractive views, buildings, planting and street art will all make for better, more interesting and stimulating journeys on London's streets, thus encouraging people not to drive short distances.

2.3 LOCAL POLICY

Core Strategy and Saved Southwark Plan Policies (Southwark Council, 2011)

- 2.3.1 The Core Strategy is a planning document which provides a policy framework for development in the borough up to 2026. It is one of the most important documents in Southwark Council's local development framework, presenting its long-term vision, spatial strategy and strategic policies to deliver sustainable development. Although the Core Strategy will be replaced by the New Southwark Plan in due course, until the NSP is adopted it remains the principal policy document shaping development in the borough.

- 2.3.2 The Core Strategy reviews how people travel to work, shopping and other activities and the impact this has on traffic levels and congestion. One of the aims of the Core Strategy is to locate new development in town centres that are more accessible, so people need to travel less. The strategy also emphasises the need to improve walking and cycling facilities as this will directly mitigate congestion. In addition, it highlights requirements for further improvements to the capacity of the public transport network, and the integration of modes as a co-ordinated network.
- 2.3.3 Section 4.31 describes the vision to develop the Canada Water Action Area into a town centre which combines shopping, civic and leisure, business and residential uses. This includes an additional 35,000m² of retail space, 2,500 new homes and 875 affordable housing units. This will be supplemented by office development which, combined with the retail provision, will generate approximately 2,000 jobs.
- 2.3.4 The Core Strategy contains seven sections which summarise the objectives and policies of Southwark Council. Strategic Policy 2 addresses the use of sustainable modes of transport. The aim is to encourage walking, cycling and the use of public transport rather than travel by car. This will be achieved by:
- *“Planning places and development with priority for walking and cycling, whilst maximising the use public transport and minimising car use;*
 - *Directing large development to areas that are very accessible by walking, cycling and public transport;*
 - *Safeguarding land for planned public transport improvements;*
 - *Improving access to mixed use town and local centres;*
 - *Encouraging use of the River Thames for transport and improving links between Southwark and north of the river; and*
 - *Requiring a transport assessment with applications to show that schemes minimise their impact, minimise car parking and maximise cycle parking to provide as many sustainable transport options as possible”.*
- 2.3.5 In addition to the Core Strategy, some transport related policies are saved from the 2007 Southwark Plan. These include Policy 5.1, which states that major developments generating a significant number of trips should be located near transport nodes.

New Southwark Plan (Southwark Council, Proposed Submission Version December 2017)

- 2.3.6 The proposed submission version of the New Southwark Plan (NSP) sets out the strategy for the regeneration of Southwark including policies that will guide new development in the borough.
- 2.3.7 The plan presents Canada Water as one of Southwark Council's regeneration areas. Policy P30 classifies the area as a major town centre. This document refers to the Canada Water Area Action Plan (CWAAP) for more in-depth information on this opportunity area.
- 2.3.8 A number of policies make direct reference to transport provision in relation to developments:

- P46 supports the grant of planning permission for developments that indicate there is sufficient public transport capacity to accommodate increased trips, improve accessibility to public transport via sustainable modes and support improvements to public transport;
- P47 addresses the highway impact of new developments with the key focus on minimising car trips and ensuring safe and efficient servicing;
- P48 relates to enhancing the borough's walking facilities with new developments providing exemplary facilities and permeability, aligning with the draft MTS;
- P50 supports the grant of planning permission for schemes which improve cycling permeability, enable cycling growth through generous provision of cycle parking and contribute towards the provision of cycle hire docking stations; investment in cycling is also addressed in the Draft MTS; and
- P52 applies to car parking provision including promotion of car free developments in areas with PTALs of 5 or 6, and ensuring that town centre car parking associated with new development contributes to economic viability, supports rapid turnover of spaces and includes maximum stay restrictions.

Canada Water Area Action Plan (Southwark Council, 2015)

- 2.3.9 The intention of the Canada Water Area Action Plan (CWAAP) is to regenerate the area around Canada Water and sets out a vision for how the area will develop over the period leading up to 2026. The CWAAP was adopted in 2012 and subsequently updated in 2015, following the Daily Mail's decision to vacate its printworks site in the area.
- 2.3.10 Work on the AAP commenced in 2007 and its adoption followed four rounds of public consultation, as well as an examination in public. Prior to the update to the CWAAP in 2015, a further series of public consultation events took place.
- 2.3.11 The plan focusses on the core area around Canada Water and presents three key elements as to why this area is considered most suitable for development:
- The character of the core is different to the surrounding area with a range of town centre uses and "larger, taller flatted development";
 - This area has higher levels of public transport accessibility; and
 - It contains concentrations of large development opportunities with the capacity to contribute significantly to regeneration.
- 2.3.12 The CWAAP presents Southwark Council's vision for the area, which is to create a new destination around the Canada Water basin that combines shopping, civic use, education, leisure, business and homes to create a new heart for Rotherhithe. The council wishes to strengthen Canada Water's role as a shopping destination, and Policy 21 sets out that development in the core area will provide a minimum of 4,500 net new homes between 2011 and 2026.

2.3.13 The main challenges and opportunities are discussed in Section 2.2:

- Creating “*a genuine town centre and neighbourhood facilities*”;
- Creating “*improved connections*”;
- Designing “*a great place to visit, relax and have fun*”;
- Delivering “*safer streets, squares and parks*”;
- Providing “*more and better homes*”; and
- Providing “*enhanced social and economic opportunities*”.

2.3.14 A number of policies proposed in the CWAAP relate directly to transport:

- Policy 6 states improvements will be made to the walking and cycling network and development proposals should provide routes which are safe, direct and convenient, aligning with Policies P48 and P50 in the NSP;
- Policy 7 outlines plans to work with TfL to improve the frequency and quality of public transport, including river transport;
- Policy 8 requires proposals to consider how developments will be serviced safely and adequately through transport assessments, as well as outlining key improvements required to the existing road network;
- Policy 9 states that any car parking provided for retail and leisure facilities must be provided as ‘town centre’ car parking, and should be used efficiently throughout the day and evening; and
- Policy 10 states that the maximum parking ratio within the core area for residential development will be 0.3 spaces per unit.

Southwark’s Cycling Strategy (Southwark Council, 2015)

2.3.15 Southwark’s Cycling Strategy document presents methods to improve and promote cycling within the borough. The document contains a number of commitments towards achieving this.

2.3.16 At present the mode share for cyclists in Southwark is 4.6%. The target is to increase mode share to 10% over the next 10 years. Southwark Council is committed to delivering appropriate infrastructure and providing the right support to promote cycling to a broader demographic.

2.4 GUIDANCE

National Planning Policy Guidance (DCLG)

2.4.1 The National Planning Policy Guidance (NPPG) contains guidance on Travel Plans and Transport Assessments, setting out that they are required for all developments which generate significant amounts of movements. The NPPG states that these should be:

- Proportionate to the size and scope of the proposed development to which they relate and build on existing information wherever possible;
- Established at the earliest practicable possible stage of a development proposal;

- Tailored to particular local circumstances; and
- Brought forward through collaborative ongoing working between the local planning authority/transport authority, transport operators, rail network operators, Highways Agency where there may be implications for the strategic road network and other relevant bodies. Engaging communities and local businesses in Travel Plans, Transport Assessments and Statements can be beneficial in positively supporting higher levels of walking and cycling (which in turn can encourage greater social inclusion, community cohesion and healthier communities).

Transport Assessment Guidance (TfL)

- 2.4.2 TfL's guidance provides high level advice for the transport element of planning applications in relation to large developments in London. This guidance can be found on the TfL website (<https://tfl.gov.uk/info-for/urban-planning-and-construction/transport-assessment-guidance>).
- 2.4.3 The guidance provides information to:
- *"Better inform applicants to the preparation of transport assessments and statements;*
 - *Provide clarity on technical aspects of trip generation and modelling; and*
 - *Confirm TfL's approach in the assessment of planning applications".*
- 2.4.4 Advice relating directly to transport assessments refers to the expected inputs, analysis and outputs which the documents should contain and the correct processes for developing these.

London Cycling Design Standards (TfL)

- 2.4.5 The London Cycling Design Standards (LCDS) set out TfL's guidance for the design of cycle friendly streets and spaces. They form part of TfL's Streetscape Toolkit, and include guidance on strategic and local cycle provision. A number of guiding principles for the design of cycle infrastructure are set out through which the aims of the LCDS are to be achieved. In particular:
- Cycling in London is now a form of 'mass transport' and should be provided for as such;
 - The nature of cycling makes separation and protection from volume motor traffic necessary, however cycle provision should treat bicycles as vehicles and not force people cycling to mix with pedestrians and cause unnecessary conflict;
 - Cycle routes provided must 'work', in terms of consistency, flow, and being intuitive to all road users; holistic network coverage and planning is also necessary; and
 - Changes in allocation of road space can influence modal choice.
- 2.4.6 A wide range of cycle facilities are put forward, with different combinations considered appropriate for different situations. Levels of segregation are taken into account, from full segregation of pedestrians, cyclists and motor vehicles to the appropriate design of spaces where cyclists can mix with pedestrians or with motor vehicles.

Manual for Streets (DfT, 2007)

2.4.7 The Manual for Streets (MfS) provides technical guidance focussing on quiet residential streets but, many of the principles can be applied to other street types. It states that the design of residential streets should not be driven by movement function and how wider benefits can occur if they are designed for the needs of all members of the community.

2.4.8 MfS aims to contribute to the design of streets that:

- *“Help build and strengthen the communities they serve;*
- *Meet the needs of all users, by embodying the principles of inclusive design;*
- *Form part of a well-connected network;*
- *Are attractive and have their own distinctive identity;*
- *Are cost-effective to construct and maintain; and*
- *Are safe”.*

2.4.9 The manual is for all parties involved in the planning, design and approval of residential streets.

Manual for Streets 2 (CIHT, 2010)

2.4.10 The intention of the Manual for Streets 2 (MfS2) is to explore how guidance in the MfS can be applied to busier streets and non-trunk roads. This was to fill the perceived gap in existing guidance between the Design Manual for Roads and Bridges (DMRB) and the MfS.

2.4.11 The MfS2 states the key principles underpinning the MfS and analyses whether these can be applied to other street types based on speed limits and an assessment of the local context. This concludes the majority of principles from the MfS can be implemented for other street types such as inter-urban and non-trunk roads.

Travel Plan Guidance (TfL, 2013)

2.4.12 This guidance contains information on requirements for travel plans, the expected content and ways of monitoring and enforcing targets. The guidance identifies that both national and regional policy state the need to manage the transport impact of new developments, which a travel plan facilitates. The benefits that a travel plan can bring to a new development are discussed including reduced congestion and an improved local environment. The development quanta which require a full travel plan are outlined for each land use and apply to new developments and extensions of existing sites.

2.4.13 Interim travel plans are required where the type of occupier is known at the pre-application stage. Framework travel plans are considered more appropriate for mixed use developments and outline planning applications where specific elements have not yet been established.

Inclusive Mobility (DfT, 2005)

2.4.14 The main purpose of the guidance is to outline access design for disabled people which satisfies their requirements. The needs of other users are also considered:

- Those with small children;

- Those carrying luggage or heavy shopping; and
 - People with temporary mobility problems.
- 2.4.15 The overarching aim of the document is to facilitate design that supports social inclusion. The early sections focus on barriers and obstructions which cause problems for pedestrians, including street-works, advertisement boards, over hanging vegetation and cars parked on footways. Measures to counteract these issues are considered in the document.
- 2.4.16 The majority of disabled people depend on the private car for independent mobility and thus the ability to park close to their destination is very important. Provision should therefore be made for car parking spaces designed for blue badge holders. The guidance advises on signage for blue badge parking as well as the design, number of spaces and management.

Construction Logistics Plan Guidance (TfL, 2017)

- 2.4.17 This guidance was produced by TfL to ensure Construction Logistics Plans (CLPs) were of a high standard and would be instrumental in “well-planned” construction logistics that will reduce:
- *“Environmental impact: Lower vehicles emissions and noise levels;*
 - *Road risk: Improving the safety of road users;*
 - *Congestion: Reduced vehicle trips, particularly in peak periods; and*
 - *Cost: Efficient working practices and reduced deliveries”.*
- 2.4.18 The guidance presents a standardised approach for CLPs that informs developers of the relevant technical requirements. It describes planned measures which may be considered and provides information on implementation and monitoring. This includes Outline CLPs which are submitted as part of the planning application and Detailed CLPs which should be developed by the Principal Contractor in the pre-construction process.

Delivery and Servicing Plans – Making freight work for you (TfL)

- 2.4.19 This guidance sets out the organisational benefits of developing Delivery and Servicing Plans (DSPs), and suggests a range of tools and techniques to help make sure that they are successful and that freight activity is well managed. The three key areas that are highlighted as benefitting from DSPs are:
- Proactive management of deliveries to reduce the number of servicing trips associated with a site, particularly in the morning peak hour;
 - The identification of safe and legal areas where loading can take place; and
 - The selection of delivery companies who can demonstrate a commitment to best practice.

3. Existing Site

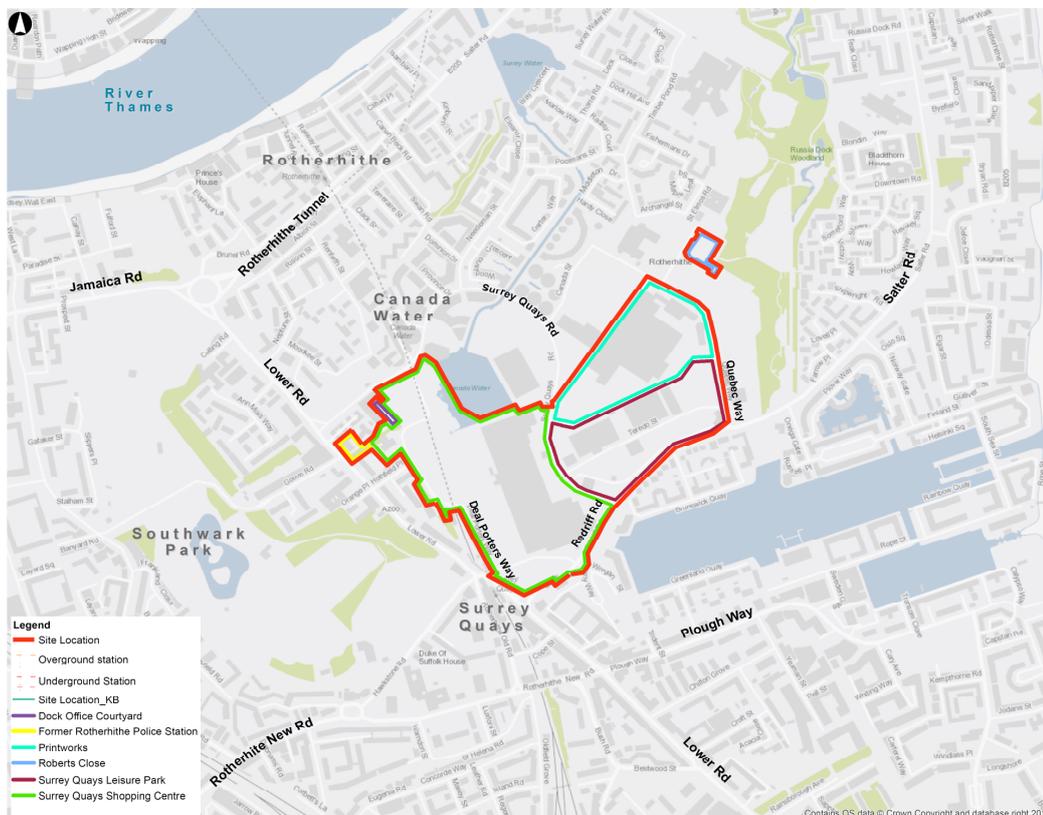
3.1 SITE LOCATION AND COMPOSITION

3.1.1 The Site is located in the Canada Water Opportunity Area and Housing Zone, within Southwark, and its location is shown on Figure 3.1. The Opportunity Area covers much of the Rotherhithe Peninsula on the southern side of the River Thames. Canary Wharf and the Isle of Dogs are located to the east on the opposite side of the river.

3.1.2 The 21.3-hectare site includes:

- Surrey Quays Shopping Centre (SQSC);
- The former Harmsworth Quays Printworks;
- The Surrey Quays Leisure Park (SQLP) site;
- The site at Roberts Close;
- The former Dock Offices Courtyard; and
- The former Rotherhithe Police Station.

Figure 3.1: Site location plan



3.1.3 The Surrey Quays Shopping Centre is located to the south east of Canada Water and is approximately 275m walking distance from Canada Water station. It was built in the

1980s and provides 34,754m² Gross Internal Area (GIA) of retail space. The shopping centre is anchored by a 10,308m² GIA Tesco Extra food store and the upper level primarily accommodates dining outlets.

- 3.1.4 The Printworks was formerly used to print the Daily Mail and Evening Standard newspapers, prior to relocation of their printing facility to Thurrock in 2013. It occupies the north-eastern portion of the Site and is approximately 325m walking distance from Canada Water station. The site of the Printworks extends to 5.32 hectares and consists of buildings, car parking and loading areas. The buildings on the site total 42,047m² GIA. Recently the Printworks has operated as an event space with a capacity of 6,000 people.
- 3.1.5 Surrey Quays Leisure Park forms the eastern portion of the Site and is approximately 450m walking distance from Canada Water station. It currently provides 12,645m² GIA of leisure and dining space including a cinema, bingo hall and bowling alley and restaurants such as Pizza Hut, Cafe East and Frankie & Benny's.
- 3.1.6 Roberts Close is located at the north-eastern extent of the Site and is approximately 750m walking distance from Canada Water station. The 0.3-hectare site is currently used as a temporary community garden and also provides construction access to the adjacent London Square site. The site has a long history of vacancy; planning permission was granted in 2001 to provide a security facility and parking for the nearby Printworks site, but this was not implemented.
- 3.1.7 The Dock Offices are located at the north-western edge of the Site and are approximately 150m walking distance from Canada Water station; they are Grade II listed and provide office accommodation. The Dock Office buildings are outside the red line boundary of the Site, but their associated car parking and landscaped areas are included as the area known as the Dock Offices Courtyard.
- 3.1.8 The former Rotherhithe Police Station is at the north-west end of the Site and is approximately 525m walking distance from Canada Water station. The site area is 0.18 hectares and accommodates a 1,046m² GIA building and external car parking. The site was used as an operational police station before its closure in June 2013.

3.2 SITE ACCESS

- 3.2.1 At present each of the distinct areas of the Site have their own access arrangements; these are discussed in greater detail below.
- 3.2.2 The Surrey Quays Shopping Centre is accessed by the public on foot, bicycle and by vehicle from Surrey Quays Road and Redriff Road via Deal Porters Way, a private road which runs through the shopping centre car park. Servicing takes place in a dedicated service yard on the north-eastern side of the shopping centre building and service vehicles enter and exit via Surrey Quays Road.
- 3.2.3 The Printworks is a secure site and therefore access points are currently limited. Pedestrians and vehicles can enter and exit the site via an access control point on Surrey Quays Road. Vehicle access is also permitted via an access control point on Quebec Way.
- 3.2.4 The Surrey Quays Leisure Park is highly accessible for those on foot, who can gain access to the site from Surrey Quays Road, Redriff Road and Quebec Way. The public

can also gain access to the site on bicycle and by vehicle from roundabouts on Surrey Quays Road and Quebec Way. These two points are also used by servicing vehicles to enter and exit the site.

3.2.5 The Dock Office is accessed on foot from Surrey Quays Road and by vehicle from Deal Porters Way.

3.2.6 The former Rotherhithe Police Station is accessed from Lower Road, with pedestrian access directly into the building and vehicle access via a crossover and private access road to the car park at the rear.

3.3 ON-SITE PARKING

Bicycle Parking

3.3.1 Within and around the existing Site there are approximately 386 existing bicycle parking spaces. They are allocated as follows:

- Surrey Quays Shopping Centre – 66 spaces;
- Printworks – 26 spaces (these are private and therefore not accessible to the general public);
- Surrey Quays Leisure Park – 34 spaces;
- Northern footway of Surrey Quays Road outside Canada Water station – 80 spaces;
- Southern footway of Surrey Quays Road outside Canada Water station – 54 spaces;
- On the south-east corner of the Surrey Quays Road / Deal Porters Way junction – 108 spaces;
- Surrey Quays Road / Lower Road junction – 8 spaces; and
- Lower Road outside Surrey Quays station – 10 spaces.

3.3.2 The locations of these spaces are shown on Figure 3.2 overleaf.

Figure 3.2: Existing bicycle parking



- 3.3.3 In addition to this cycle parking provision, in March 2018 Mobike and ofo launched 'dockless' cycle hire schemes in Southwark, concentrating on the Rotherhithe and Canada Water areas. In comparison to the traditional cycle hire model operated by TfL where hire bikes are parked at fixed locations, dockless operators rely on existing public cycle parking with bikes unlocked and hired via a phone app.

Motorcycle Parking

- 3.3.4 Surrey Quays Shopping Centre currently provides 18 off-street motorcycle parking spaces. There are no further existing marked spaces across the Site.

Car Parking

- 3.3.5 The existing uses of the Site currently provide 2,216 off-street car parking spaces, which are distributed as follows:
- Surrey Quays Shopping Centre – 1,260 standard car parking spaces and 77 accessible car parking spaces (37 for disabled people and 40 parent and child), all of which are available to the public;
 - Printworks – 270 standard car parking spaces and three spaces for disabled people, although these are private car parking spaces and are not currently available for use by the general public;

- Surrey Quays Leisure Park – 585 standard car parking spaces and 21 spaces for disabled people, all of which are available to the public;
- The Dock Offices – 32 car parking spaces (approximately, as the existing spaces are poorly marked) which are private car parking spaces; and
- Former Rotherhithe Police Station – 3 private car parking spaces (approximately).

3.4 COMMITTED DEVELOPMENT

- 3.4.1 Within the red line boundary, both the Surrey Quays Shopping Centre and the Surrey Quays Leisure Park have previously been the subject of planning applications.
- 3.4.2 A planning permission was granted in March 2012 (reference 11/AP/4206) for a 10,500m² retail extension to the Surrey Quays Shopping Centre. The planning permission has been partially implemented and conditions discharged and therefore could be fully built out despite the time that has elapsed since consent was granted.
- 3.4.3 Planning permission was granted in October 2010 (reference 90/AP/1999) for a comprehensive redevelopment of the Surrey Quays Leisure Park to provide 1,800m² retail, 890m² restaurant use, 540 residential units, 123 student accommodation units and a similar level of leisure provision as currently occupies the site. However, this permission has not been implemented and has now expired.
- 3.4.4 Outside the red line boundary of the Site but in close proximity, the Decathlon site is located to the north of the Surrey Quays Shopping Centre and to the west of the Printworks, and has planning permission for 1,030 residential units, 12,301m² of retail space, 2,800m² of offices, 698m² of cinema space and 658m² for a health centre. This development is currently being constructed by Sellar Property Group and Notting Hill Housing Trust.
- 3.4.5 The London Square site at 24-26 Quebec Way is located between the Printworks and Roberts Close and has planning permission for 366 residential units and ancillary A1, D1 and D2 uses. This site is currently under construction, and is due to complete in 2018.
- 3.4.6 The former Quebec Way Industrial Estate, to the east of the London Square site, is being redeveloped as Quebec Quarter, providing 386 residential units, a creche and a gym. Construction on the site is ongoing, with some units completed.
- 3.4.7 King's College London is also in the process of developing the former Mulberry Business Park site, immediately to the north-west of the Printworks. The completed development will provide 770 new student rooms, office space, affordable housing, retail units and a health care centre. Construction of the development is intended to be complete in 2021.

3.5 EXISTING AND COMMITTED TRIP GENERATION

Surrey Quays Shopping Centre

- 3.5.1 The existing trip generation of the Surrey Quays Shopping Centre has been derived from traffic surveys of the car park entrance carried out in December 2014. The number of vehicle trips recorded as part of these surveys is shown in Table 3.1.

Table 3.1: Surveyed weekday peak hour SQSC trips (December 2014)

	AM Peak Hour		PM Peak Hour	
	Arr	Dep	Arr	Dep
Vehicles	279	228	498	520

- 3.5.2 The information from the 2014 surveys has been compared to car park data obtained from British Land for the week commencing 4th September 2017, shown in Table 3.2. This comparison showed that the 2014 survey data recorded a greater number of movements into the car park than were recorded in 2017; as such, the use of December 2014 data is considered to be robust.

Table 3.2: SQSC car park arrivals, w/c 04/09/2017

	AM peak hour arrivals	PM peak hour arrivals
04/09/2017	201	400
05/09/2017	197	387
06/09/2017	203	394
07/09/2017	229	383
08/09/2017	238	414

- 3.5.3 The Transport Assessment produced by Colin Buchanan and Partners for the 2012 planning permission (reference 11/AP/4206) to extend the shopping centre also set out the mode share of existing shoppers. This is shown in Table 3.3.

Table 3.3: Surveyed SQSC mode share (taken from Colin Buchanan and Partners 2011 TA)

Mode	Percentage
Car Drivers	38%
Car Passengers	2%
Motor bikes	0%
Bikes	1%
Bus	21%
LU / LO	10%
Train	0%
Walk	28%
Total	100%

- 3.5.4 Applying the mode shares in Table 3.2 to the number of car trips in Table 3.1, it is possible to factor up car trips to work out the existing trips by all modes of transport as shown in Table 3.4.

Table 3.4: Baseline SQSC trips

	AM peak hour		PM peak hour	
	Arr	Dep	Arr	Dep
Car Drivers	279	228	498	520
Car Passengers	15	12	26	27
Motor bikes	0	0	0	0
Bikes	7	6	13	14
Bus	154	126	275	287
LU / LO	73	60	131	137
Train	0	0	0	0
Walk	206	168	367	383
Total	734	600	1,311	1,368

3.5.5 As outlined in Section 3.4, there is also currently an extant planning permission to extend the Surrey Quays Shopping Centre by 10,500m², equivalent to a 35% increase in floor area. Were the extant permission to be fully built out, this would result in the total trip generation from the Surrey Quays Shopping Centre site shown in Table 3.5. These trip numbers are taken from the Transport Assessment for the consented development, on the basis that the increase in trips is not proportional to the increase in floorspace.

Table 3.5: Consented SQSC trips

	AM peak hour		PM peak hour	
	Arr	Dep	Arr	Dep
Car Drivers	310	254	554	578
Car Passengers	16	13	29	30
Motor bikes	0	0	0	0
Bikes	8	7	15	15
Bus	171	140	306	320
LU / LO	82	67	146	152
Train	0	0	0	0
Walk	229	187	408	426
Total	817	667	1458	1522

Surrey Quays Leisure Park

3.5.6 As with the Surrey Quays Shopping Centre, trip generation of the Surrey Quays Leisure Park has been based on December 2014 traffic surveys, recording flows in and out of the car park. This results in the number of vehicle trips shown in Table 3.6.

Table 3.6: Surveyed SQLP trips

	AM peak hour		PM peak hour	
	Arr	Dep	Arr	Dep
Vehicles	42	4	57	57

- 3.5.7 The Transport Assessment for the expired 2010 planning consent (reference 90/AP/1999) also set out the mode share of existing visitors as shown in Table 3.7.

Table 3.7: Surveyed SQLP mode share (taken from previous 2010 TA)

Mode	Percentage
Car Drivers	40%
Car Passengers	10%
Motor bikes	0%
Bikes	0%
Bus	12%
LU / LO	11%
Train	0%
Walk	27%
Total	100%

- 3.5.8 Factoring up the car trips shown in Table 3.6 by the mode shares shown in Table 3.7 gives the total existing trip generation of the site shown in Table 3.8.

Table 3.8: Baseline SQLP trips

	AM peak hour		PM peak hour	
	Arr	Dep	Arr	Dep
Car Drivers	42	4	57	57
Car Passengers	11	1	14	14
Motor bikes	0	0	0	0
Bikes	0	0	0	0
Bus	13	1	17	17
LU / LO	11	1	16	16
Train	0	0	0	0
Walk	28	3	38	38
Total	105	10	143	143

Former Harmsworth Quays Printworks

- 3.5.9 Although currently operating as an event space, the Harmsworth Quays Printworks site could revert to its previous B1c / B2 use on expiry of the current temporary planning consent. As such, the TRICS database has been used to determine the person trip

rates for similar industrial units under a B2 use, shown in Table 3.9, and details of which are presented in Appendix B.

Table 3.9: B8 Commercial Warehousing trip rates

	AM peak hour		PM peak hour	
	Arr	Dep	Arr	Dep
Total People (trip rate / 100m ² GFA)	0.317	0.111	0.042	1.186

3.5.10 However, only one of the sites considered is based in London, and is in a location with poorer access to public transport than the Site. As such, and given the absence of survey data associated with the site's previous use, 2011 Census Workplace data for the Workplace Zones shown on Figure 3.3 and shown in Table 3.10 has been used to split the person trip rates derived from TRICS into individual modes. The census data used is shown in Appendix B. The resultant trips are shown in Table 3.11.

Figure 3.3: 2011 Census Workplace Zones

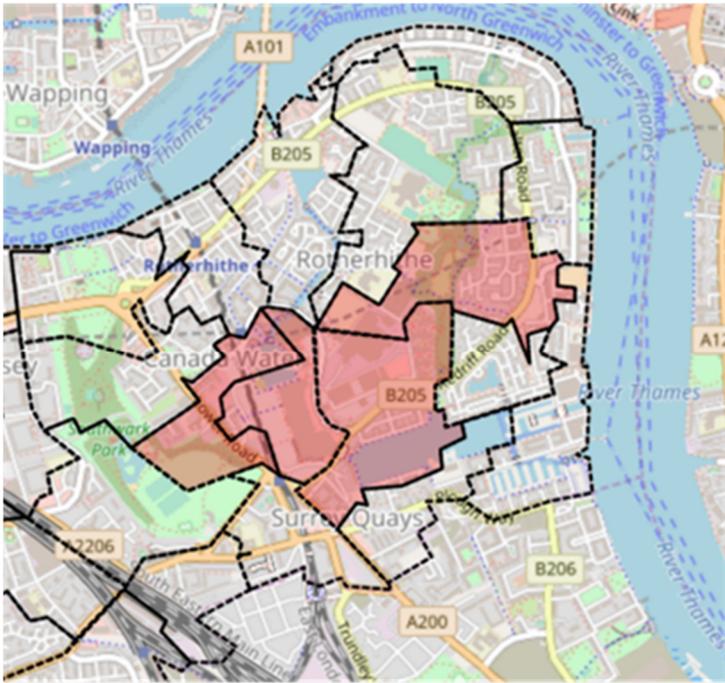


Table 3.10: Journey to work mode share from 2011 census data

Mode	Percentage
Car driver	34%
Car passenger	2%
Motorbike	2%
Bicycle	3%
Bus	18%
LU / LO	18%
Train	11%
Walk	13%
Total	100%

Table 3.11: Potential Harmsworth Quays Printworks trips

	AM peak hour		PM peak hour	
	Arr	Dep	Arr	Dep
Car Drivers	45	16	6	170
Car Passengers	3	1	0	10
Motorbikes	3	1	0	10
Bicycle	4	1	1	15
Bus	24	8	3	90
LU / LO	24	8	3	90
Train	15	5	2	55
Walk	17	6	2	65
Total	135	47	18	504

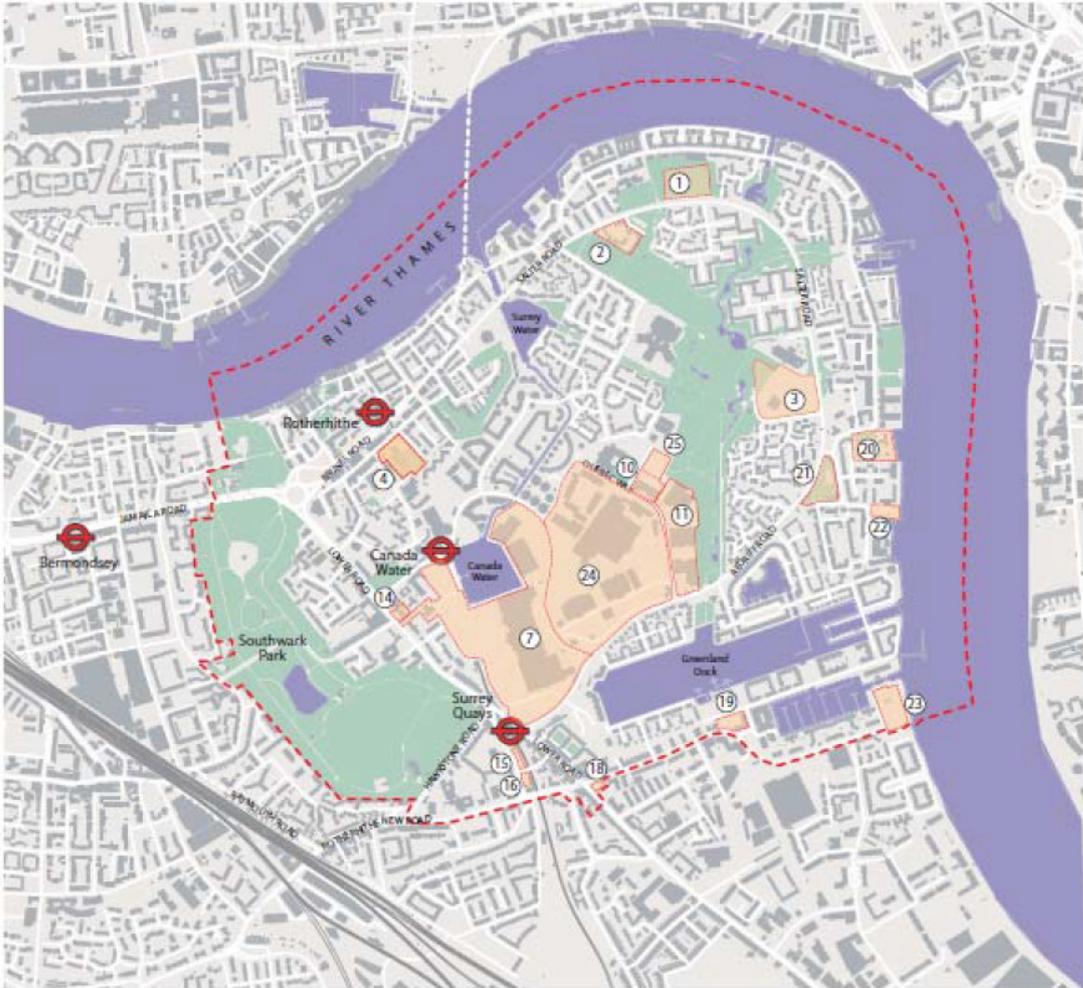
4. Canada Water Strategic Transport Study

- 4.1.1 In February 2017, TfL and Southwark Council commenced work on a Canada Water Strategic Transport Study (STS) to examine the implications of growth in the Canada Water Opportunity Area as a whole.
- 4.1.2 The STS examines future year conditions as if no development happened in the Canada Water Opportunity Area and then explores how growth in the Opportunity Area would change transport conditions. The STS aims to test and identify packages of transport interventions that would be appropriate to address Opportunity Area growth, to assist the authorities in setting future transport investment priorities for the area.
- 4.1.3 A range of discussions have taken place between TfL, Southwark Council and British Land to agree how the STS can also inform the assessment of the Development that British Land proposes. It has been agreed that this Transport Assessment can draw, as appropriate, on work undertaken on the STS in order to ensure broad alignment and consistency between the two studies. British Land has therefore been collaborating with TfL and Southwark Council as the STS has developed.
- 4.1.4 The STS is underpinned by transport modelling using TfL's strategic transport and land use models, which are used as part of the evidence base for the London Plan and Mayor's Transport Strategy, as well as in developing Opportunity Areas across London. For the STS, these comprise:
- The London Transportation Studies (LTS) model, which uses the numbers of future homes and jobs to forecast total trip volumes, where people will travel to and from, and what mode of transport (public transport, highway or walking / cycling) they will use. Outputs from the LTS model are translated into inputs into TfL's two primary assignment models, Railplan and CLoHAM.
 - The Railplan model, which assigns public transport trips from LTS onto the rail and bus networks in the area, taking account of service levels and journey times to determine the number of trips likely to be seen on each part of the public transport network.
 - The Central London Highway Assignment Model (CLoHAM), based on SATURN software, which assigns highway-based trips from LTS onto the highway network. Again, CLoHAM takes account of highway network conditions and journey times to determine the most likely route taken between an origin and a destination.
- 4.1.5 TfL's strategic models draw on predicted growth in population and jobs from the 2016 London Plan. The models have a base year of 2011 for public transport and 2012 for highways. Future years of 2021, 2031 and 2041 are used to align with London Plan growth projections, which underpin the modelling. 2031 is being used as the basis for the work in this Transport Assessment, as this is closest to the 2033 completion date assumed for the Development and used for assessment in the Environmental Statement.
- 4.1.6 The STS explores two scenarios for 2031:
- a 'Do Minimum' scenario which assumes no additional development in the Opportunity Area (but assumes London Plan growth forecasts are achieved

elsewhere). This represents the 'future baseline' for this Transport Assessment, i.e. the future conditions if no development was brought forward within the Canada Water Opportunity Area;

- a 'Do Something' scenario which includes new development in the Opportunity Area including the developments proposed by British Land, Notting Hill Housing / Sellar and Kings.
- 4.1.7 TfL's specification for the STS covers public transport modelling for the three-hour morning peak period from 0700 to 1000 hours and highway modelling for the one-hour evening peak period from 1700 to 1800 hours, which has been agreed to be the worst case in each instance.
- 4.1.8 As part of early work within the STS, TfL and Southwark Council agreed to work with British Land and Arup to share the LTS forecasts for the 2031 'Do Minimum' scenario and to create LTS forecasts for the two Development Scenarios which are being proposed by British Land. This information has been used in this Transport Assessment where appropriate so that there is a common basis with the STS and therefore the London Plan, and has been developed further as part of this assessment as necessary.

Figure 4.1: Map of Opportunity Area sites included in the STS modelling (taken from the Canada Water Area Action Plan)



Proposal Sites
 Wider AAP Area

- | | |
|--|--|
| <ul style="list-style-type: none"> 1. St Pauls Sports Ground (CWAAP 1) 2. Land adjacent to Surrey Docks Stadium (CW AAP 2) 3. Downtown (CW AAP 3) 4. Albion Primary School CW AAP 4) 5. Blank 6. Blank 7. Decathlon site, Surrey Quays Shopping Centre and overflow carpark (CWAAP 7) 8. Blank 9. Blank 10. 24-28 Quebec Way (CWAAP 10) 11. Quebec Industrial Estate (CWAAP 11) 12. Blank 13. Blank | <ul style="list-style-type: none"> 14. Rotherhithe Police Station (CWAAP 14) 15. 23 Rotherhithe Old Road (CWAAP 15) 16. 41-55 Rotherhithe Old Road (CWAAP 16) 17. Blank 18. 247-251 Lower Road (CWAAP 18) 19. Tavern Quay (East and West) (CWAAP 19) 20. Surrey Docks Farm (CWAAP 20) 21. Dockland Settlement (CWAAP 21) 22. Odessa Street Youth Club (CWAAP 22) 23. St George's Wharf (CWAAP 23) 24. Site E, Mulberry Business Park, Harmsworth Quays and Surrey Quays Leisure Park (CWAAP 24) 25. Land on Roberts Close (CWAAP 25) |
|--|--|

5. Existing Transport Conditions

5.1 WALKING

- 5.1.1 The pedestrian network in the vicinity of the site provides good access to different land uses in the local area. Footways in the immediate vicinity of the site along Lower Road, Redriff Road and Surrey Quays Road are wide and in good condition with well-maintained tactile paving and dropped kerbs.
- 5.1.2 Access to Canada Water station is well catered for, with signalised pedestrian crossing facilities at the Surrey Quays Road / Deal Porters Way / bus station junction providing a route into the station from the south, and a zebra crossing across Surrey Quays Road adjacent to the station's northern entrance. Footways around the station are generally wide and in good condition.
- 5.1.3 To the south, there are signal controlled crossings across Lower Road providing access from the site to Surrey Quays station, although footways are generally narrower and restricted by guardrailing. The pedestrian route from the station to the site is through the Surrey Quays Shopping Centre car park, although a zebra crossing is provided for pedestrians to cross Deal Porters Way. There is a signalised pedestrian crossing across Lower Road providing access to Rotherhithe Police Station and St Joseph's Catholic Primary School on Gomm Road.
- 5.1.4 Access between the Surrey Quays Shopping Centre and Greenland Dock and areas to the south-east is via an underpass beneath Redriff Road. The route between Surrey Quays Leisure Park and Brunswick Quay is served by a zebra crossing across Redriff Road. Both routes suffer from a lack of surveillance and active frontages.
- 5.1.5 The routes to Russia Dock Woodland, Stave Hill Ecological Park and Alfred Salter and St John's RC Primary Schools from the site involve diversions around the Printworks, through which public access is not available. There is however a network of good quality footpaths into the area from Quebec Way (via Roberts Close) and Salter Road.
- 5.1.6 Bacon's College is located a short distance further north on Timber Pond Road, which provides wide, high quality footways. Timber Pond Road is accessed from Canada Street by a wide, well-surface path to the rear of Alfred Salter Primary School.
- 5.1.7 Current pedestrian provision within the site itself is poor, with the road layout predominantly designed to cater for car movements. The site is relatively impermeable, with large surface car parks and landscaping restricting easy pedestrian movement, and several links lacking footpaths. Where footpaths are provided, for example around the Dock edge, the choice of materials is not always suited to comfortable pedestrian movement.
- 5.1.8 Surveys of the pedestrian demand in the local area were undertaken in 2014 to assess the existing conditions on the pedestrian network and ascertain demand at pedestrian crossings within the site. These surveys covered pedestrian movements at the following locations:
- Canada Water station northern entrance;
 - Surrey Quays Road, at the western entrance to Canada Water station;

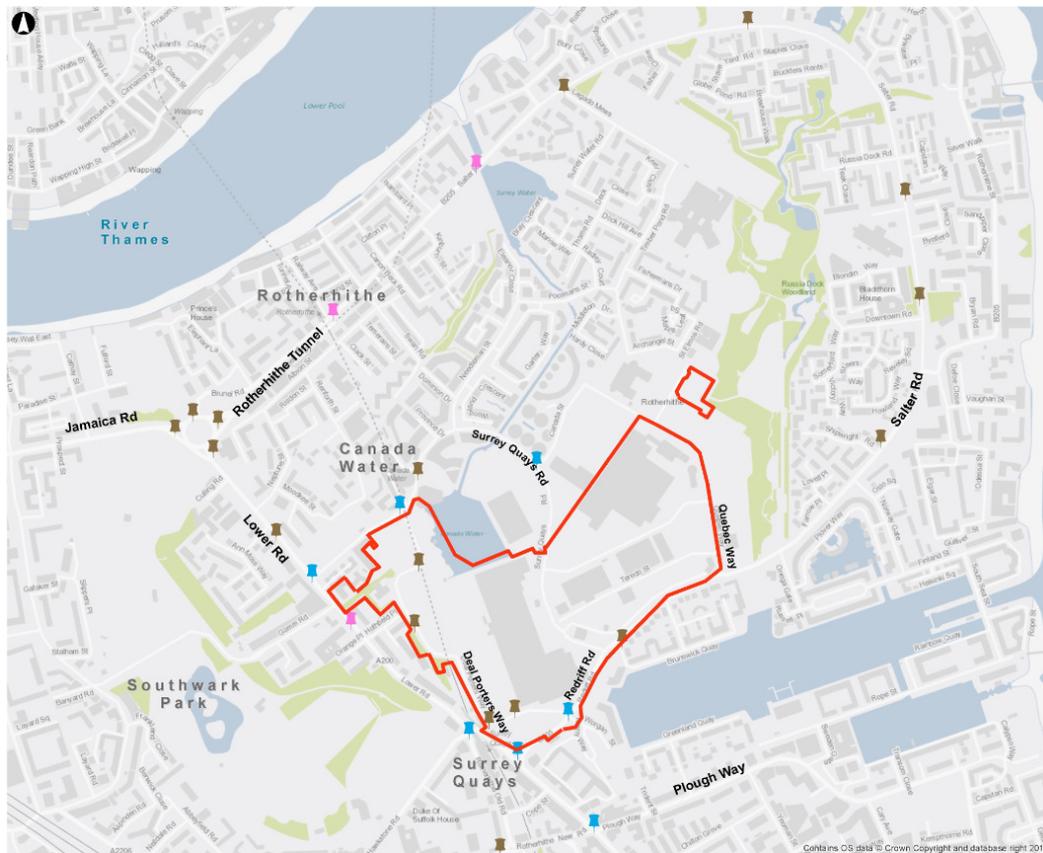
- Pedestrian crossing over Surrey Quays Road, west of the Surrey Quays Shopping Centre access;
- Pedestrian crossing over Surrey Quays Road, outside Canada Water station;
- Zebra crossing over Surrey Quays Road, east of Canada Water station;
- Pedestrian crossing over Surrey Quays Shopping Centre access road, south of Surrey Quays Road;
- Outside Surrey Quays Shopping Centre northern entrance; and
- Redriff Road, Between Greenland Dock and Surrey Quays Shopping Centre.

5.1.9 The survey locations are shown in Figure 5.1, and full results are shown in Appendix C, with existing pedestrian crossing facilities in the vicinity of the Site presented on Figure 5.2.

Figure 5.1: Pedestrian survey locations



Figure 5.2: Existing pedestrian crossing facilities



- 5.1.10 Around Canada Water station, the surveys show that pedestrian flows are generally slightly higher at the southern entrance (adjacent to the bus station) in the PM peak hour and slightly higher at the northern entrance (opposite Sainsbury's Local) in the AM peak hour, as shown in Figures 5.4, 5.11, 5.12 and 5.19. The volumes of entries and exits from the station are also more balanced in the PM peak hour than in the AM peak hour, when the majority of the pedestrian flow is entering the station. Movements around the station are predominantly over the signalised crossing on the eastern arm of the Surrey Quays Road / Deal Porters Way junction (Figures 5.8 and 5.16) as well as the zebra crossing further east (Figures 5.7 and 5.15). This therefore suggests that a large proportion of movements in and out of the station are heading to and from Deal Porters Way. By comparison flows across the staggered signalised crossing on the western side of the Surrey Quays Road / Deal Porters Way junction (Figures 5.5 and 5.13) are relatively low.
- 5.1.11 The survey also considered flows to and from Surrey Quays Shopping Centre, with surveys undertaken at the north-western corner (closest to Canada Water station, shown in Figures 5.9 and 5.17) as well as the southern access under Redriff Road (Figures 5.10 and 5.18). A greater proportion of flows in and out of the shopping centre came from the north-west in the PM peak hour, with the proportion of flows to the south being greater in the AM peak hour.
- 5.1.12 The results of the pedestrian surveys in each location are shown in Figures 5.4 to 5.19.

Figure 5.3: Crossing outside Canada Water station



Figure 5.4 – Number of pedestrian movements – AM peak hour

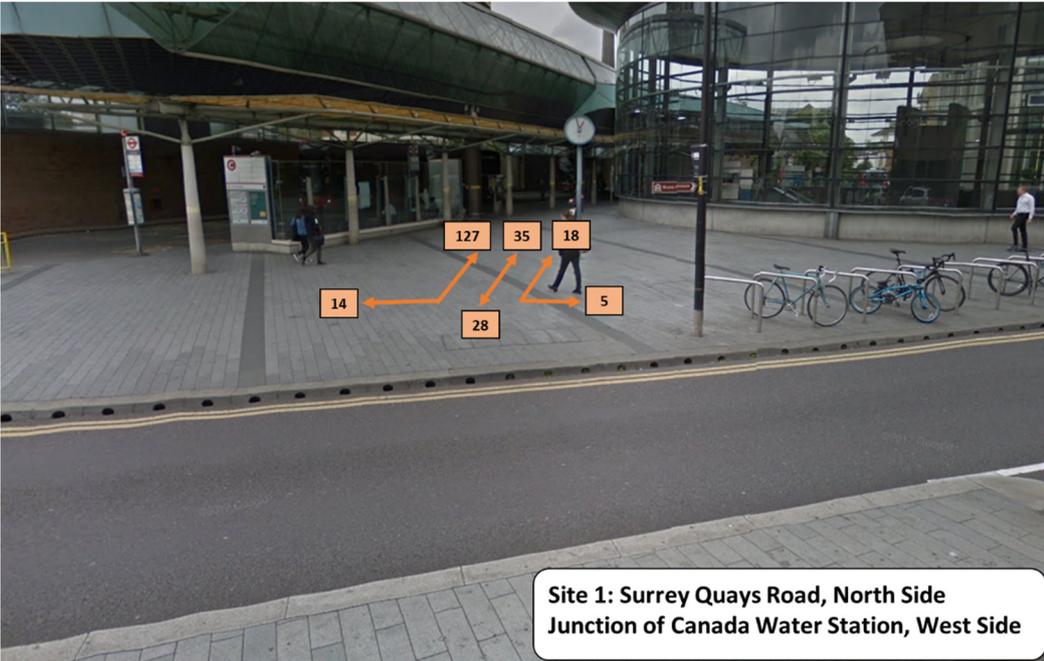


Figure 5.5: Number of pedestrian movements – AM peak hour



Figure 5.6: Number of pedestrian movements – AM peak hour

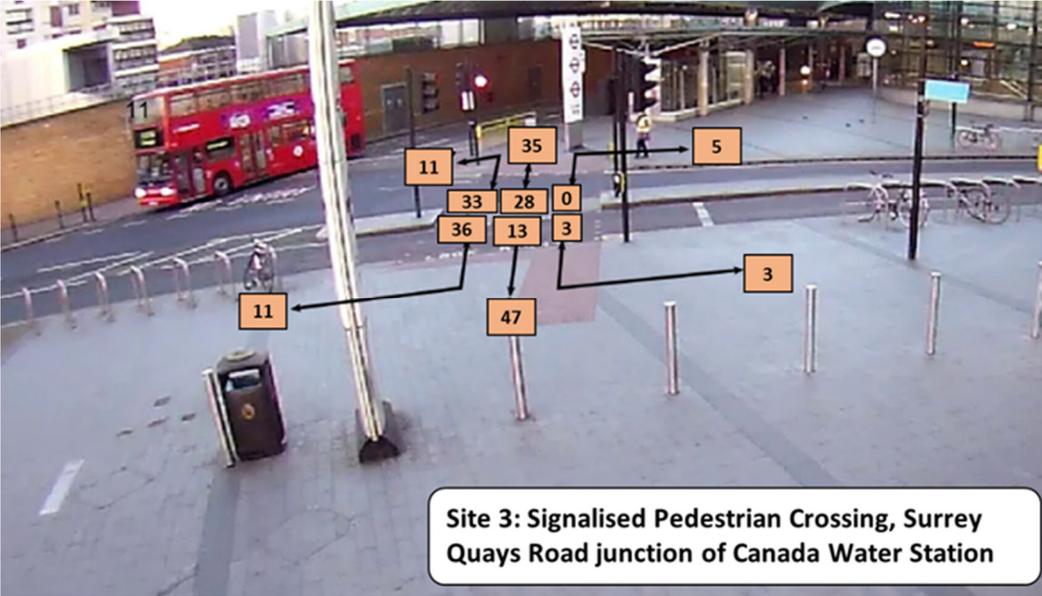


Figure 5.7: Number of pedestrian movements – AM peak hour

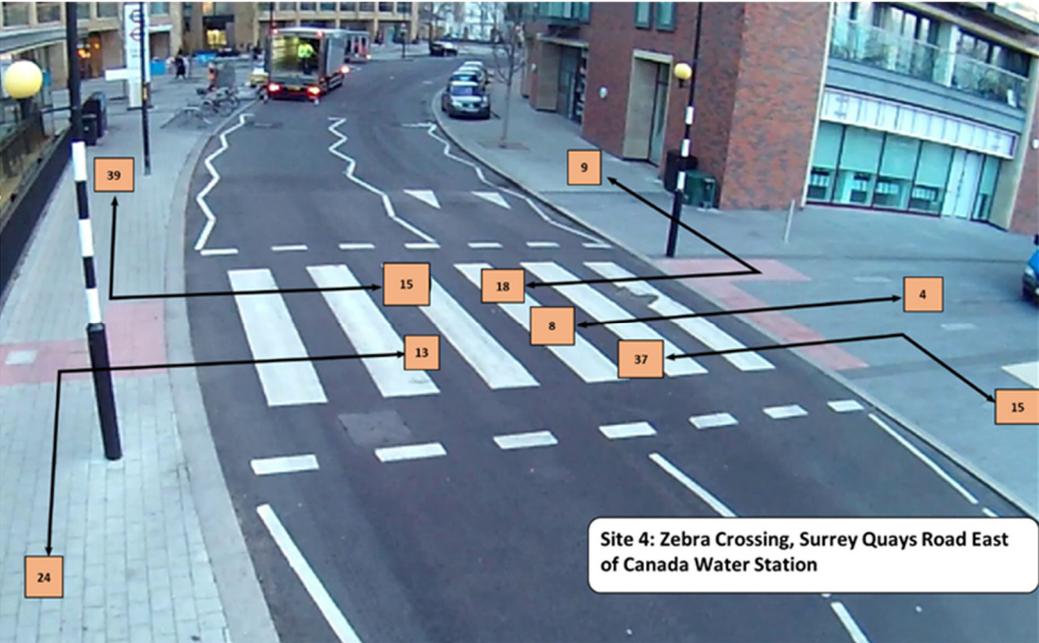


Figure 5.8: Number of pedestrian movements – AM peak hour

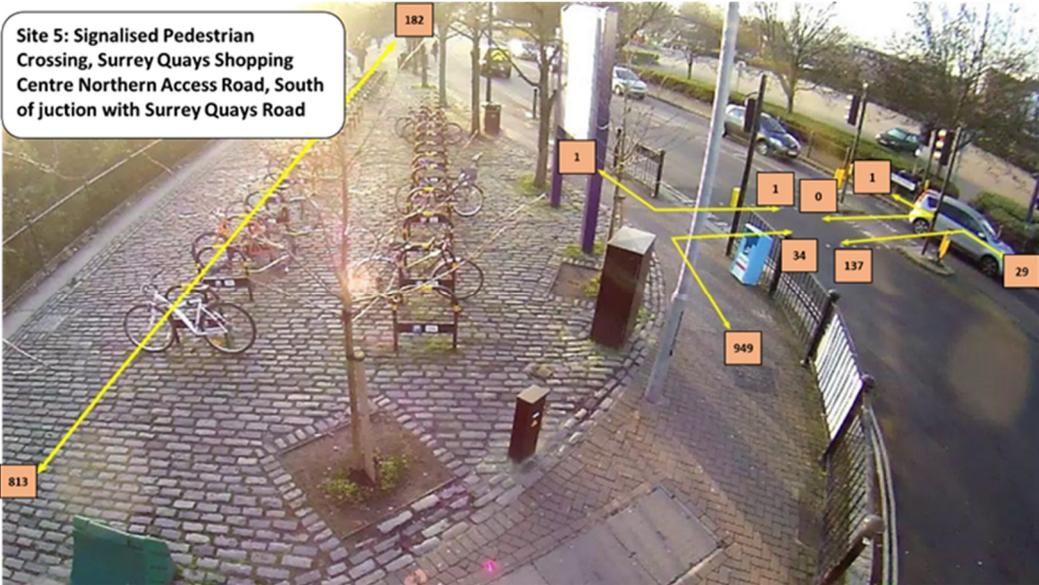


Figure 5.9: Number of pedestrian movements – AM peak hour

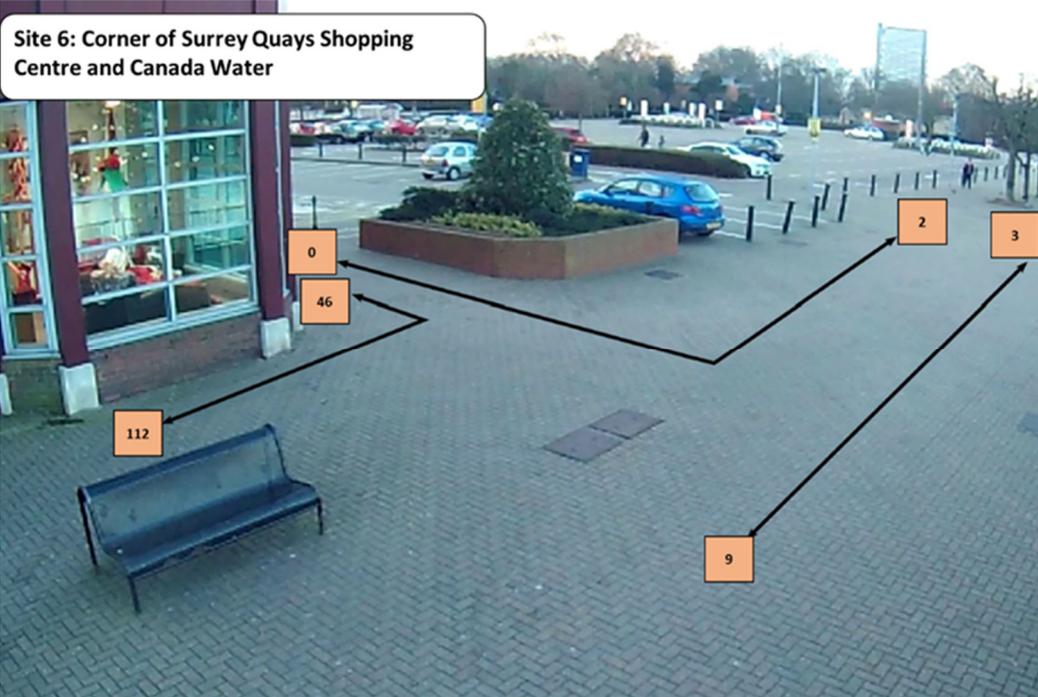


Figure 5.10: Number of pedestrian movements – AM peak hour



Figure 5.11: Number of pedestrian movements – AM peak hour



Figure 5.12: Number of pedestrian movements – PM peak hour

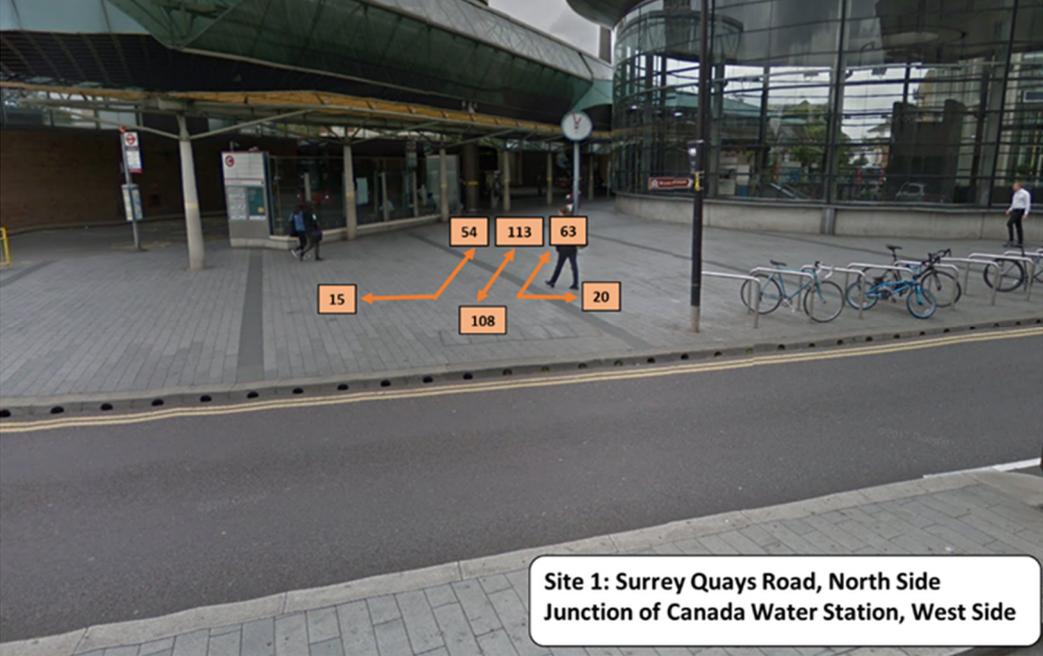


Figure 5.13: Number of pedestrian movements – PM peak hour

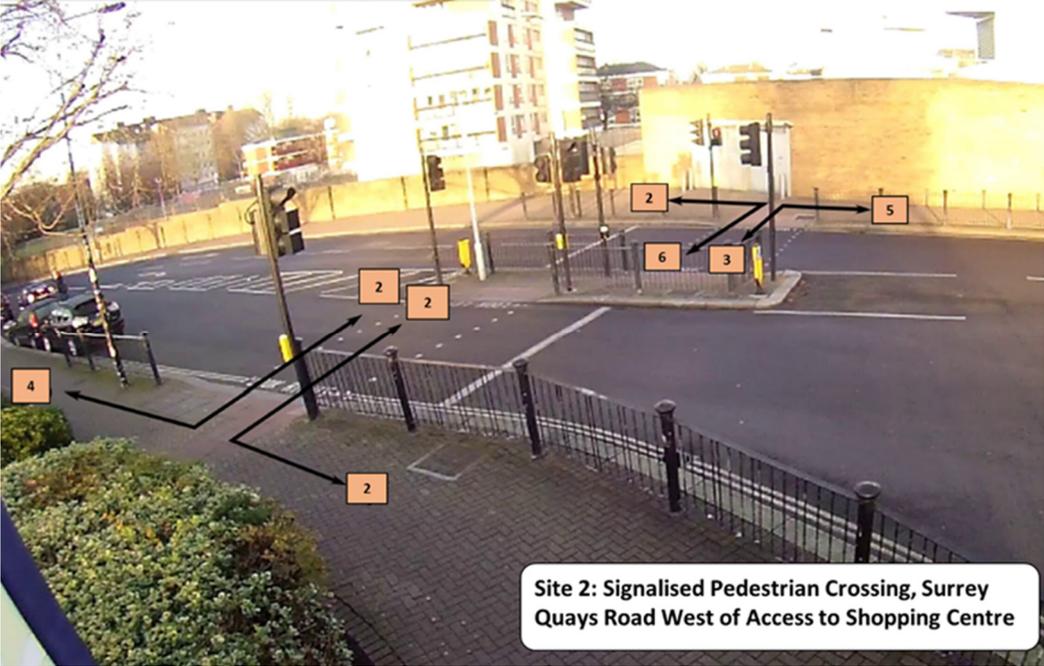


Figure 5.14: Number of pedestrian movements – PM peak hour

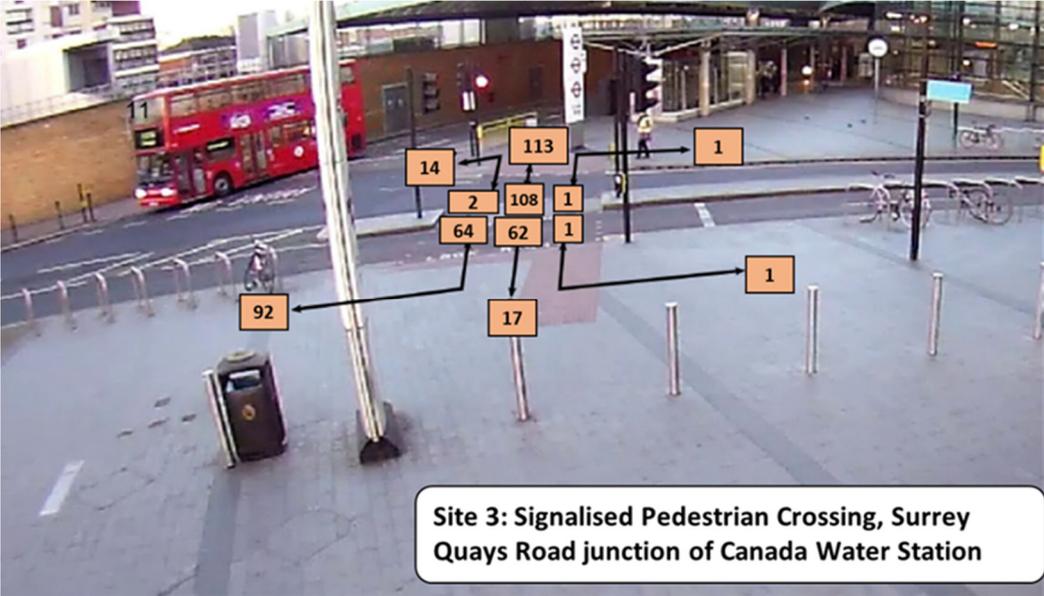


Figure 5.15: Number of pedestrian movements – PM peak hour

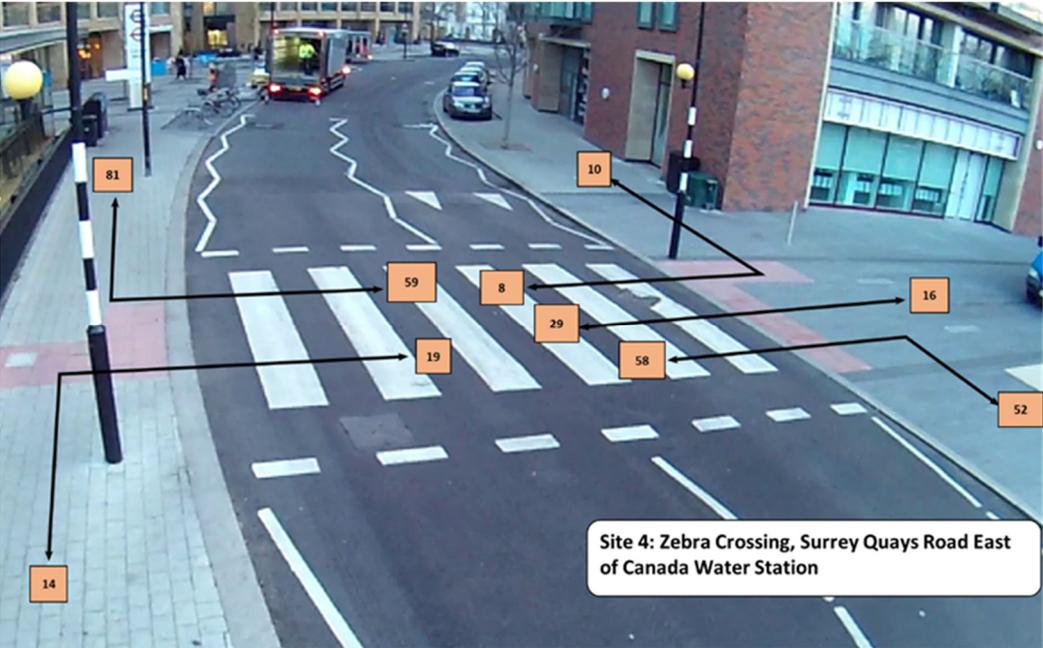


Figure 5.16: Number of pedestrian movements – PM peak hour

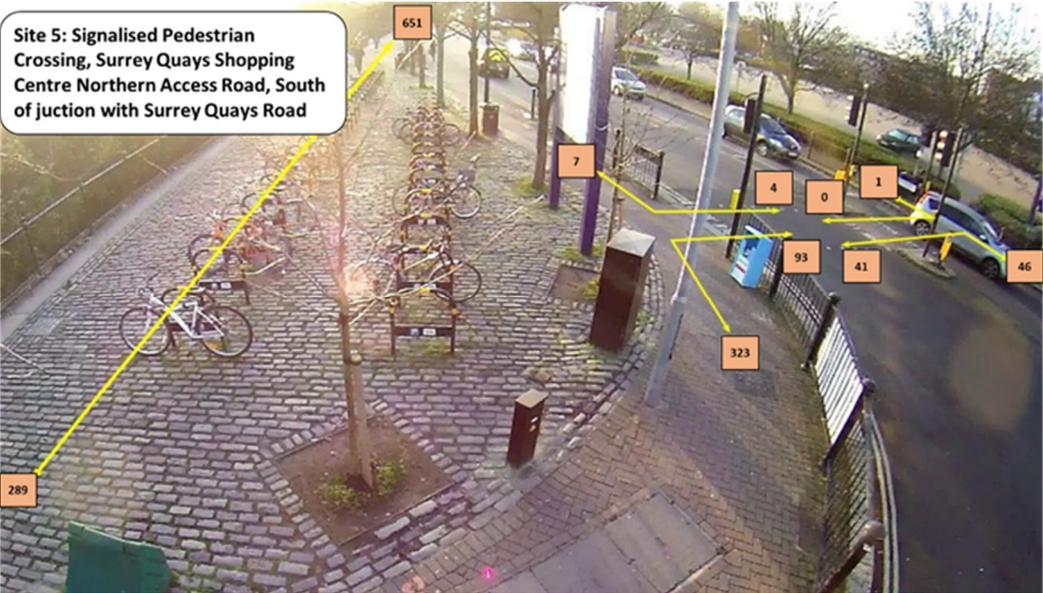


Figure 5.17: Number of pedestrian movements – PM peak hour

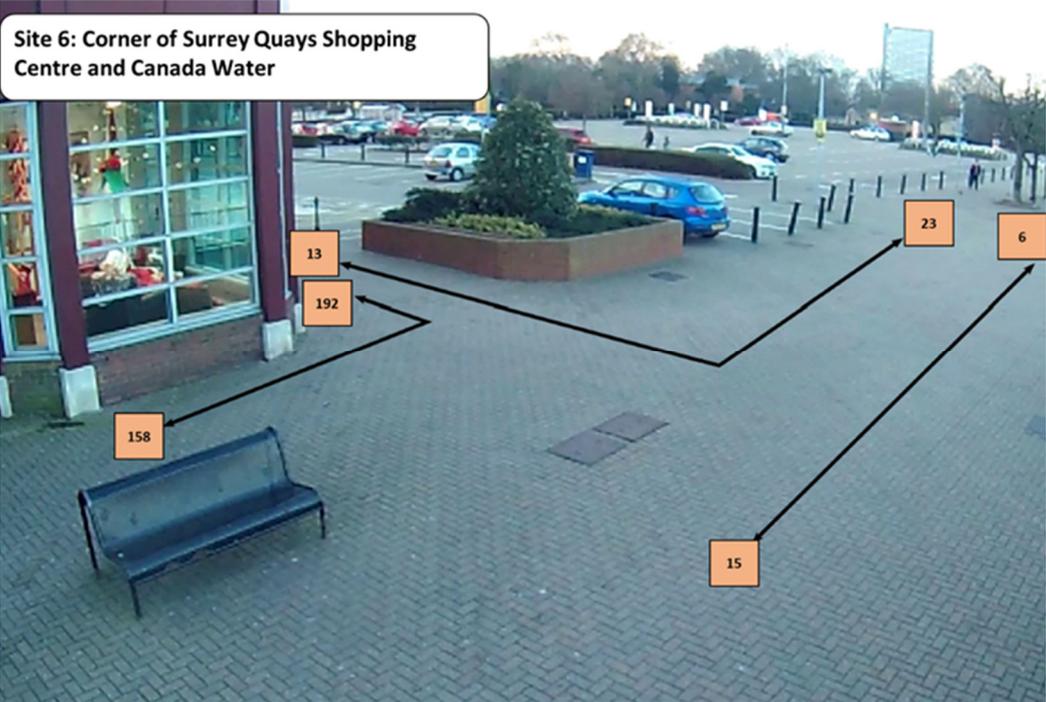


Figure 5.18: Number of pedestrian movements – PM peak hour

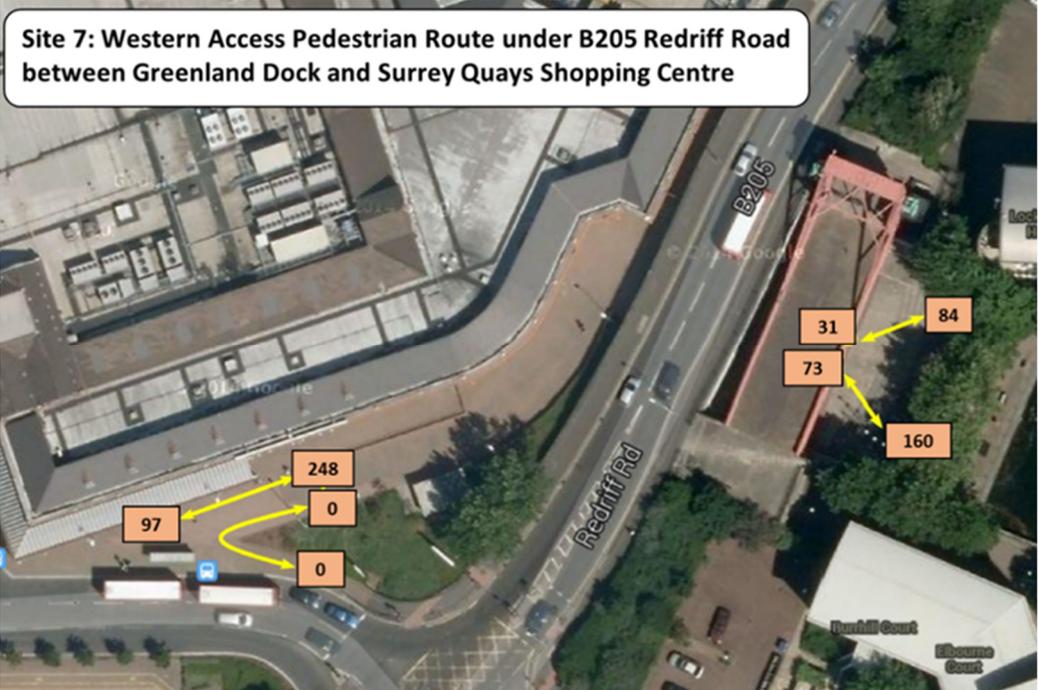


Figure 5.19: Number of pedestrian movements – PM peak hour

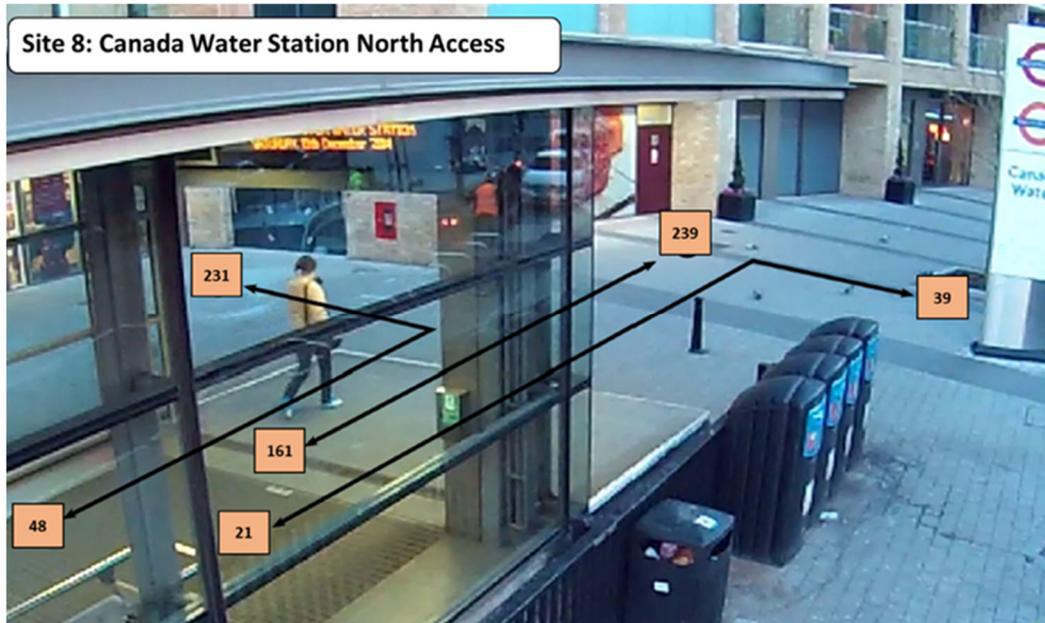


Figure 5.20: Crossing location outside Surrey Quays station



5.1.13 Although the surveys focused on the masterplan area, from site observations in the peak hours there is also a large amount of pedestrian activity around Surrey Quays station, particularly the use of the signalised pedestrian crossing at the Lower Road / Hawkstone Road / Rotherhithe Old Road junction, as shown in Figure 5.20.

5.1.14 Given that the Development proposals represent a comprehensive change to the layout of the area, together with the aspiration to significantly improve the pedestrian environment in line with Healthy Streets principles and other proposed improvements

that will be brought to major pedestrian routes outside the site along Lower Road and its junctions through emerging proposals for Cycle Superhighway 4 and other Southwark Council highway improvement proposals, a detailed Pedestrian Environment Review System (PERS) assessment of the existing pedestrian network has not been carried out.

5.2 CYCLING

5.2.1 There are no formally designated cycle routes either through or in the immediate vicinity of the Site. However National Cycle Network Route (NCNR) 4 from Tower Bridge to Greenwich passes north of Surrey Quays Road along Albatross Way and NCNR 425 (Camberwell to Rotherhithe) runs parallel to Redriff Road along Cunard Walk and Brunswick Quay. These routes are shown in in Figure 5.21.

Figure 5.21: Local cycle routes relative to site

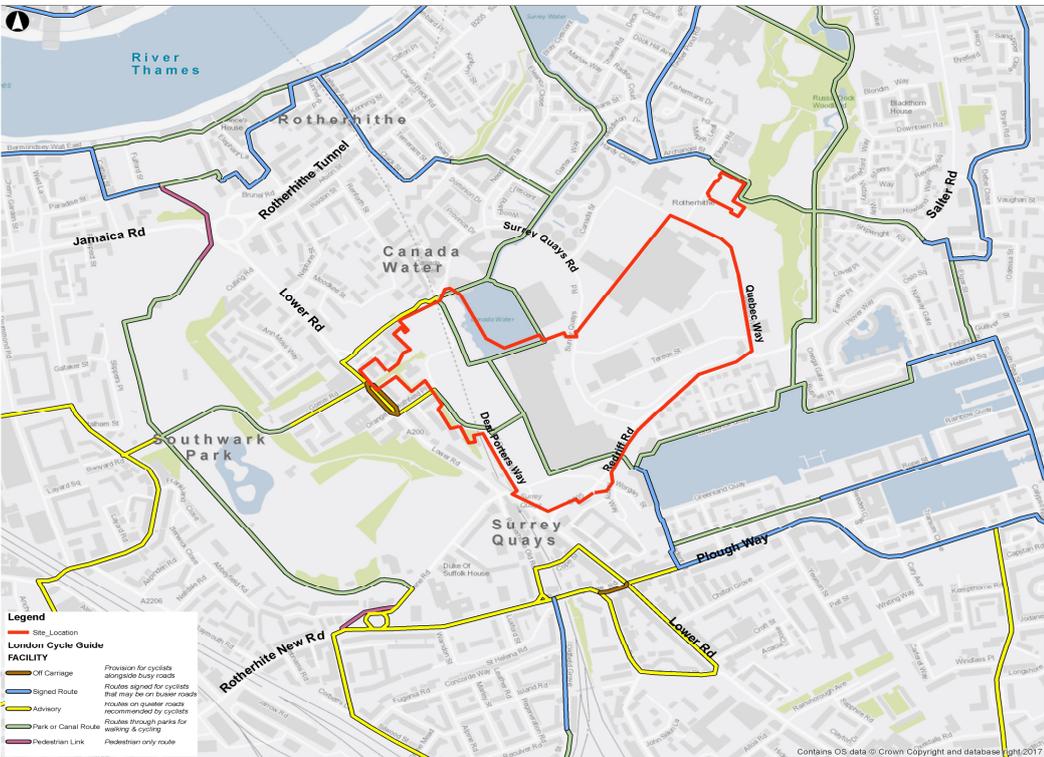
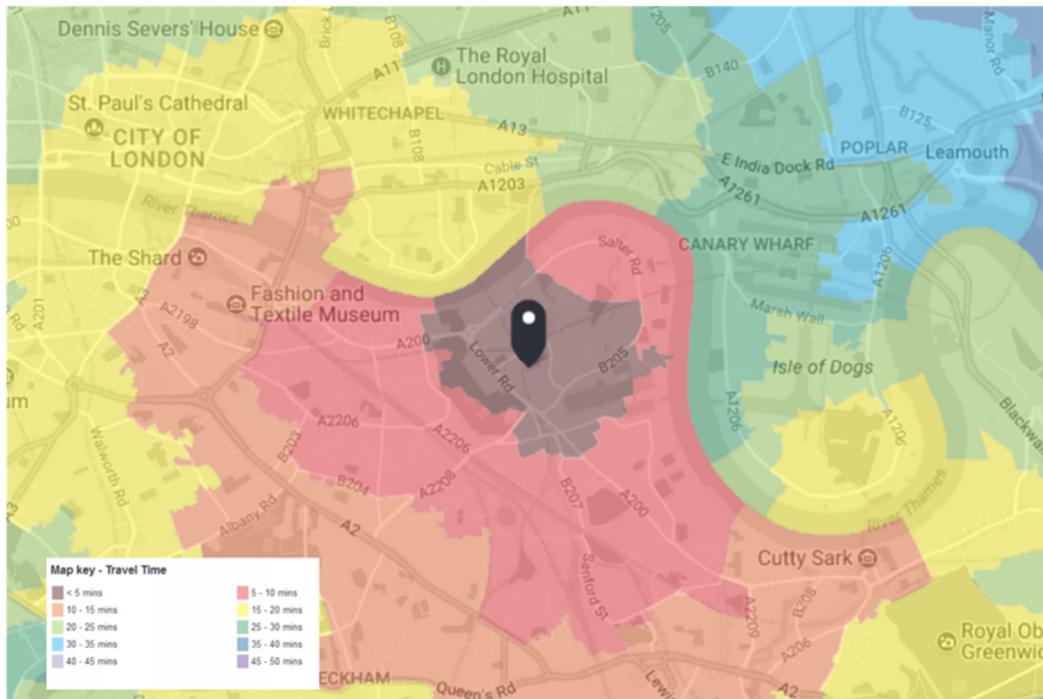


Figure 5.22: Travel time mapping – cycling (from TfL WebCAT tool)



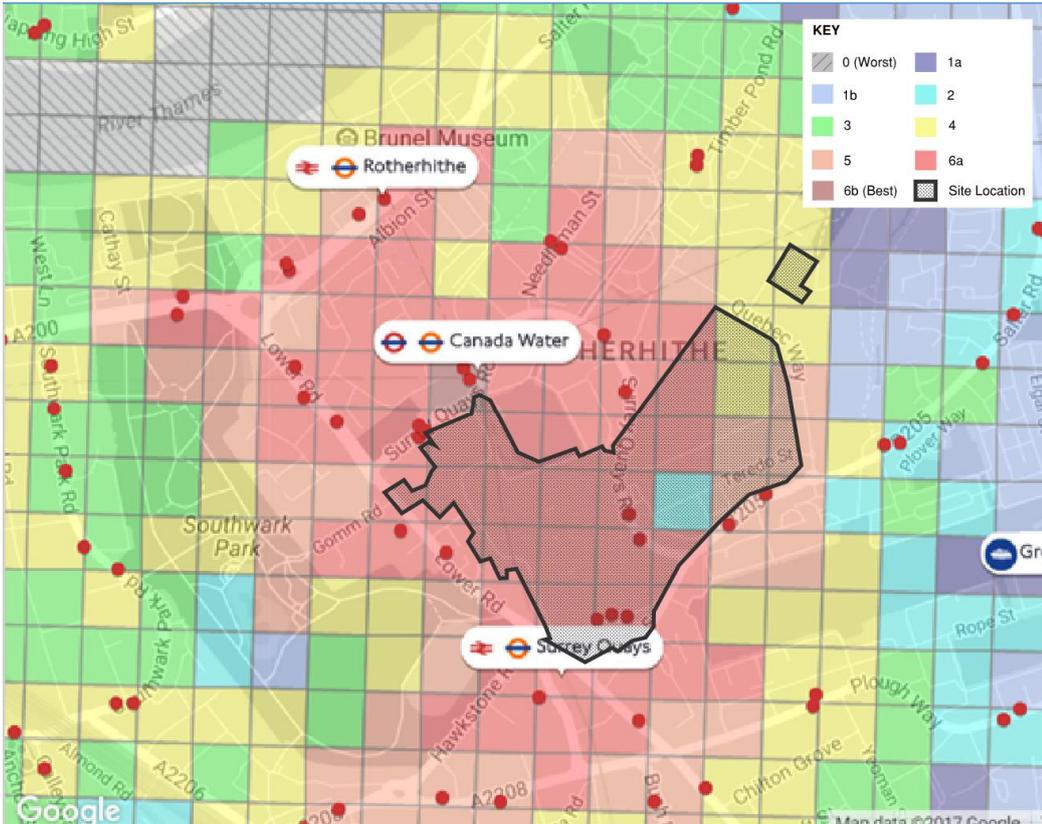
- 5.2.2 On the roads within the peninsula, a 20mph speed limit creates a low-speed environment that is more conducive to on-street cycling, although there is little formal cycle infrastructure. Some provision is made for cyclists on Lower Road, with an advanced cycle stopline for northbound cyclists at the junction of Lower Road with Surrey Quays Road, and advisory cycle lanes for cyclists in both directions to the north of the junctions of Lower Road with Redriff Road and Hawkstone Road.
- 5.2.3 A map showing areas that can be accessed by cycling in different journey time bands has been produced using TfL's online WebCAT tool (<http://www.tfl.gov.uk/webcat>); this is presented in Figure 5.22 and shows how the river currently has a large impact on cycle journey times. However, it is possible to cycle to London Bridge or Greenwich town centre within 15 minutes, with the majority of central London and Canary Wharf accessible within half an hour.
- 5.2.4 Cycle surveys were undertaken in December 2014, and showed high but tidal levels of cycle flow along Lower Road and Jamaica Road. In the three-hour morning peak (07:00 – 10:00), 681 cyclists were recorded turning from Lower Road into Jamaica Road, with 537 making the opposite movement in the PM peak (16:00 – 19:00), equivalent to 48% and 71% of vehicles making this movement respectively. However, cycle flows around the peninsula were lower, with Surrey Quays Road experiencing the highest levels of cycle flow. Cyclists made up around 10% of southbound traffic along Surrey Quays Road in the AM peak, and northbound in the PM peak.

5.3 PUBLIC TRANSPORT

Public Transport Accessibility Level (PTAL)

5.3.1 The PTAL of the Site has been extracted from WebCAT and is shown in Figure 5.23. The PTAL calculation assumes a walk speed of 4.8 km/h and considers rail stations within a 12-minute walk (960m) of the Site and bus stops within an eight-minute walk (640m) as accessible.

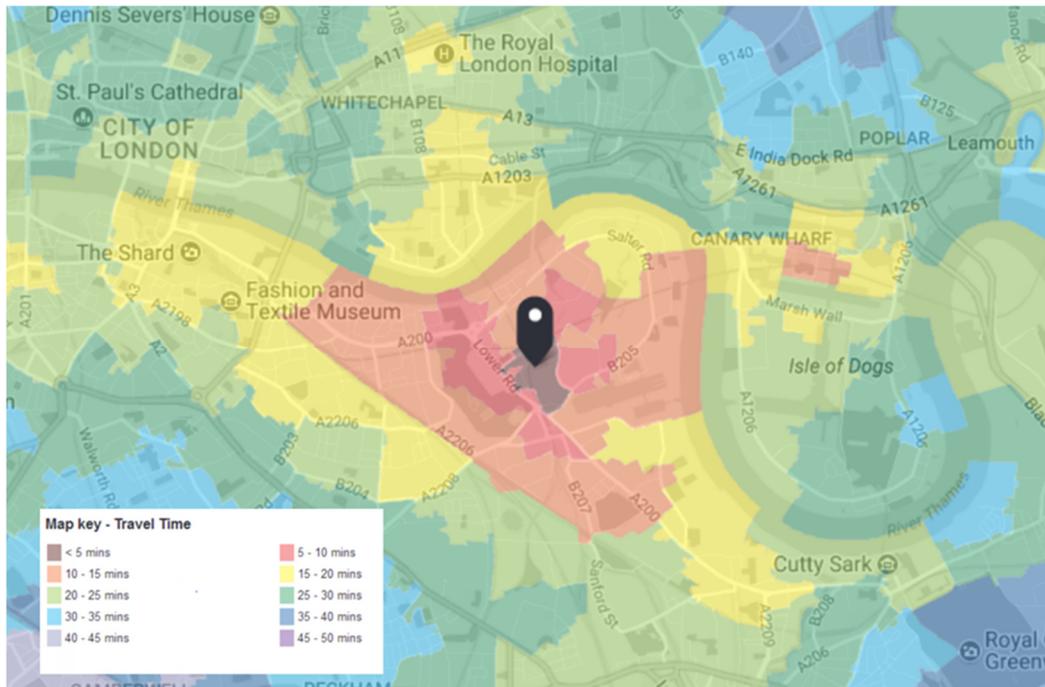
Figure 5.23: PTAL map of site (from TfL WebCAT tool)



5.3.2 WebCAT indicates that the majority of the Site has a PTAL of 6a or ‘Excellent’ (1a is the lowest accessibility rating and 6b is the highest). The PTAL reduces towards the eastern edge of the Site, with certain areas recording a PTAL of 4 or 5, which represent good and very good ratings respectively. The single square within the site showing a PTAL of 2 is considered to be an error caused by the way that WebCAT calculates walking routes from the centre of each grid square, and is not representative of an area of low accessibility.

5.3.3 A further map has been generated from WebCAT to assess public transport journey times from the masterplan area, shown in Figure 5.24.

Figure 5.24: Travel time mapping - public transport (from TfL WebCAT tool)



5.3.4 The map indicates low journey times to the east and west due to the Jubilee line, with similar benefits in the north and south direction related to the London Overground services. Notably, Canary Wharf can be accessed in under ten minutes, with the majority of the City of London and Covent Garden, Mayfair and Soho accessible in under half an hour. Journey times to key destinations are shown in Table 5.1.

Table 5.1: Journey time to key destinations from Canada Water station (from TfL Journey Planner)

Destination	Time (mins)	Route
Canary Wharf	2	London Underground
London Bridge	3	London Underground
Bank	12	London Underground
Westminster	8	London Underground
Oxford Circus	18	London Underground
Peckham	9	London Overground
Stratford	13	London Underground
Croydon	30	London Overground
Greenwich	24	Bus

London Underground and London Overground

5.3.5 Two stations are in close proximity to the masterplan area, Canada Water station adjacent to the northern edge of the Site and Surrey Quays station adjacent to the southern edge. Canada Water station provides access to the Jubilee line and London

Overground services, with access to these Overground services also available at Surrey Quays station. Rotherhithe station is also located approximately 650m to the north-west of the site, but is served by the same Overground services as Canada Water and Surrey Quays. A summary of the routes and frequencies for all services at these stations is presented in Table 5.2.

- 5.3.6 The STS work undertaken by TfL considers crowding on both the Jubilee line and London Overground services, albeit for a 2011 base year which represents the most current information used by TfL in its strategic models. Figure 5.25 shows the number of journeys made across the network in the AM 3-hour peak period, whilst Figure 5.26 shows average levels of crowding (based on the number of passengers standing) on the approach to Canada Water and Surrey Quays stations for the AM peak period, with four passengers per square metre representing the comfortable maximum capacity of a train carriage.
- 5.3.7 The STS analysis suggests that there is significant spare capacity on southbound London Overground services, and that although northbound London Overground services are approaching capacity through Surrey Quays, services subsequently become significantly less crowded as passengers disembark. In addition, it should be noted that this assumes a 'current year' of 2011, before five-car services were introduced on the London Overground, which have increased train capacity by 25%.
- 5.3.8 On the Jubilee line in the AM peak period, whilst westbound services are operating just within 'comfortable' capacity through Canada Water, eastbound services towards Canary Wharf are above the comfortable maximum capacity on arrival and departure. This has an impact on the operation of Canada Water station, as passengers entering the station or changing from London Overground services onto the eastbound Jubilee line may not always be able to board the first train. This leads to congestion within the station and on occasion station control measures are required to manage crowding, particularly in the busiest times in the peak when crowding is likely to be greater than that shown in Figure 5.26.

Table 5.2: London Underground and Overground services

Station	Line	Route	AM peak hour two-way frequency*
Canada Water	Jubilee	Stanmore – Wembley Park – Baker Street – Waterloo – Canary Wharf – Stratford	60
Canada Water and Surrey Quays	Overground	Highbury & Islington – Dalston Junction – Whitechapel – New Cross Gate – Crystal Palace	8
Canada Water and Surrey Quays	Overground	Highbury & Islington – Dalston Junction – Whitechapel – New Cross Gate – Penge West – West Croydon	8
Canada Water and Surrey Quays	Overground	Dalston Junction – Whitechapel – Rotherhithe – New Cross	8
Canada Water and Surrey Quays	Overground	Dalston Junction – Whitechapel – Rotherhithe – Peckham Rye – Denmark Hill – Clapham Junction	8

*Peak hour is 08:00-09:00

Figure 5.25: 2011 London Underground and Overground flows (07:00 – 10:00) (from TfL STS Railplan model)

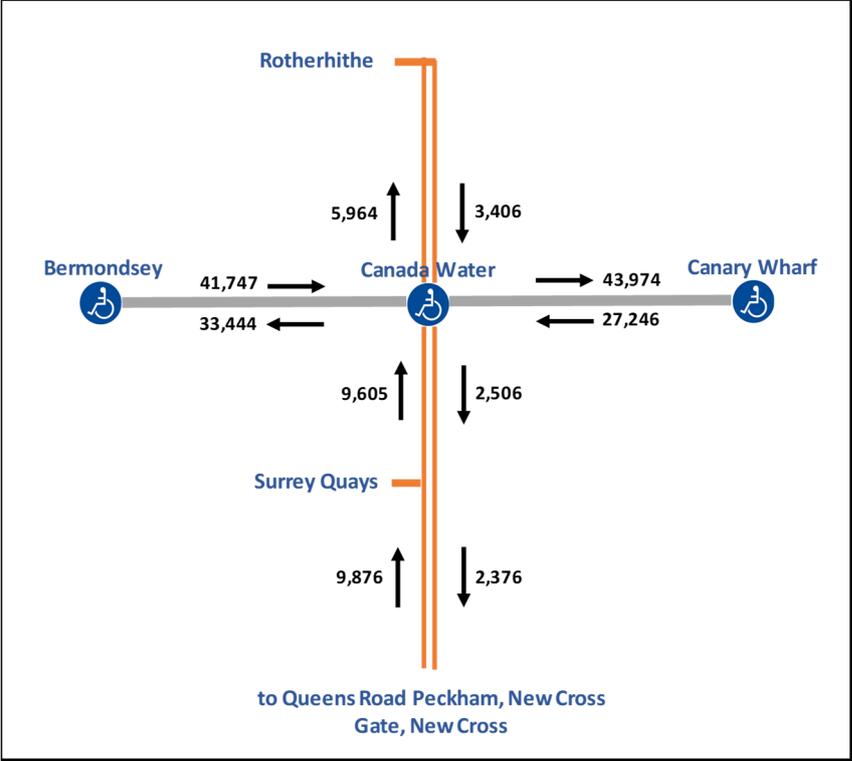
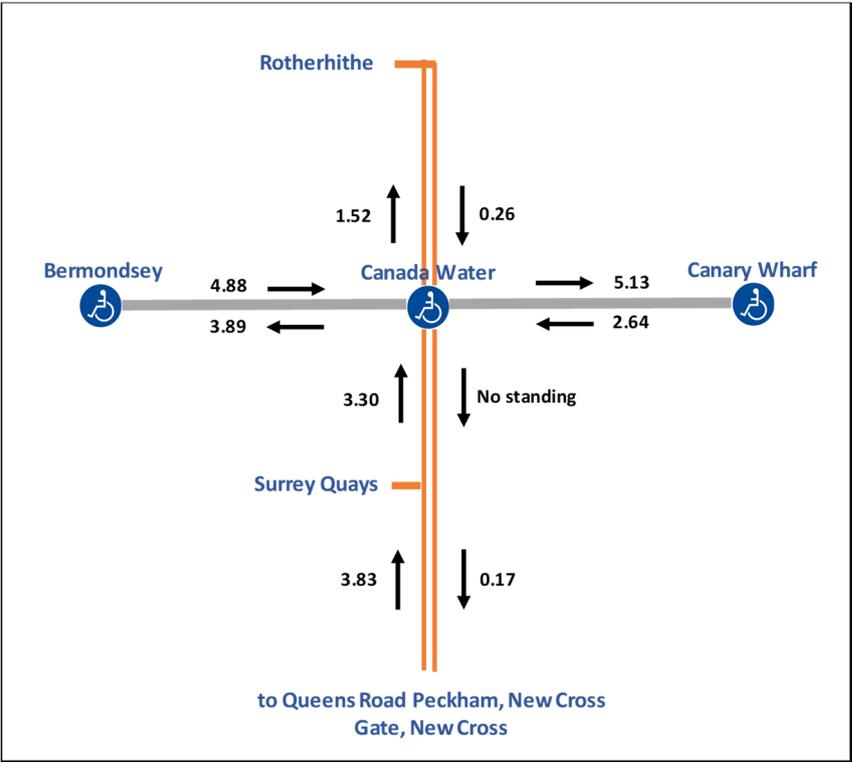


Figure 5.26: 2011 London Underground and Overground crowding levels on services in local area (standing passengers per sqm) (from TfL STS Railplan model)



Buses

- 5.3.9 Eight bus services are available within 640m walking distance of the masterplan area, all of which pass through the site. The services provide access to a variety of locations. Details of these services and their frequencies are summarised in Table 5.3.
- 5.3.10 Bus services use a number of bus stops including Canada Water bus station which is adjacent to the underground station on the northern edge of the Site. A smaller bus stop and stand facility is also provided on Deal Porters Way, at the southern end of Surrey Quays Shopping Centre. The locations of local bus stops are shown on Figure 5.27 and a bus 'spider' map in Figure 5.28.

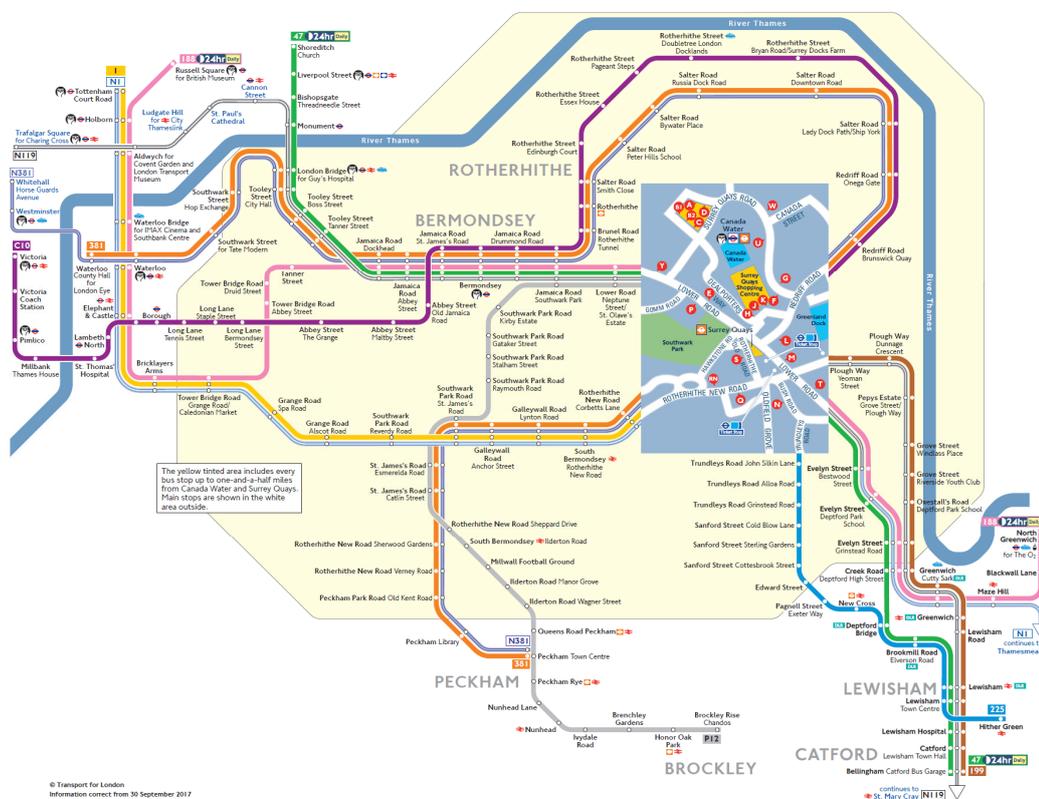
Table 5.3: Current bus services

Route No.	Route	AM peak hour (buses per hour per direction)
1	New Oxford Street – Canada Water bus station	7.5
47	Newquay Road – Shoreditch	5
188	North Greenwich station to Russell Square	8
199	Catford Garage – Canada Water bus station	5
225	Springbank Road / Hither Green station – Canada Water bus station	4
381	Peckham bus station – County Hall	6
C10	Victoria station / Grosvenor Gardens - Canada Water bus station	8
P12	Surrey Quays Shopping Centre – Brockley Rise / Chandos	5

Figure 5.27: Current location of bus stops

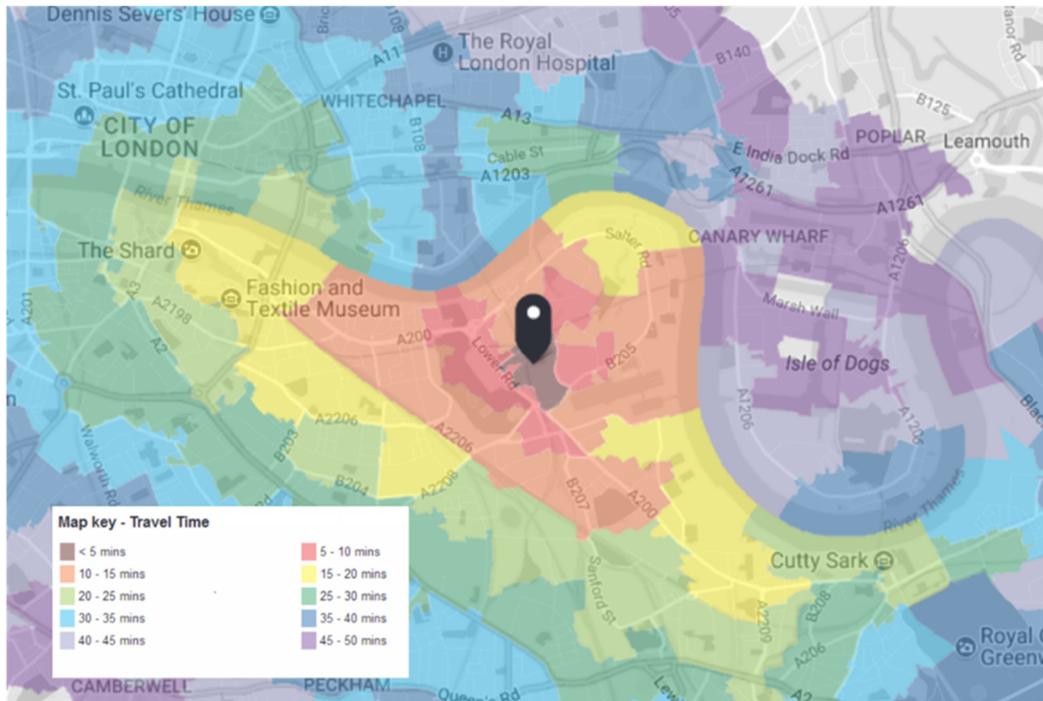


Figure 5.28: Canada Water and Surrey Quays bus spider map



- 5.3.11 At present, while Canada Water bus station is served by a number of routes, only two of these (the 381 and the C10) serve the wider Rotherhithe peninsula, the 381 using Salter Road and the C10 using Rotherhithe Street. Because of the nature of the road layout on this part of the peninsula, pedestrian links between the two roads are relatively limited. Feedback from existing residents indicates that the reliability of the C10 route is a particular concern, with buses not running to timetables or being turned short of the peninsula due to delays experienced elsewhere. As a result of this, TfL increased frequency on the C10 route from six buses per hour to eight buses per hour in 2016.
- 5.3.12 In general, bus routings are concentrated on the A200 corridor of Jamaica Road, Lower Road and Evelyn Street, with Rotherhithe New Road used to a lesser extent. This means that links to the south, and particularly to Old Kent Road and Peckham, are limited.
- 5.3.13 A map has been produced to assess journey time by bus to the areas surrounding the masterplan area in the AM peak hour, as shown in Figure 5.29.

Figure 5.29: Travel time mapping – buses (from TfL WebCAT tool)



- 5.3.14 Due to the lack of river crossings to the east, bus journey times are much longer in this direction, specifically to areas such as Canary Wharf and the Isle of Dogs. The lack of bus services to the south west is also highlighted with relatively long journey times to Peckham and Camberwell. However, it is possible to reach London Bridge and Greenwich town centre in less than 25 minutes.
- 5.3.15 'Keypoint' bus data, which surveys bus loadings, from November 2016 was provided by TfL and was analysed to assess capacity on the existing routes. This analysis suggested the majority of bus services stopping at Canada Water have spare capacity in the AM and PM peaks, with the exception of the 199 on its approach to Canada Water from Catford. A summary of the routes running through Canada Water, their current frequencies, and busiest points and times is shown in Table 5.4, although it should be noted that since these surveys were carried out, TfL has reduced frequency on Route 47 in response to falling demand.
- 5.3.16 Oyster card data from 2017 was also provided by TfL to evaluate alighting patterns on routes that serve Canada Water. The data indicated that the majority of passengers using buses to or from Canada Water are travelling to or from the south-east, particularly to locations along Evelyn Street towards Deptford. Passengers appeared to be making relatively short journeys, with the majority of journeys being made from locations between Deptford High Street (13 stops from Canada Water) and Tower Bridge Road (9 stops from Canada Water). In particular, it was noted that almost 400 trips per day are made from Canada Water bus station to the Canada Street stop (Bus Stop W), a distance of around 300m. By improving walking links in the area, any future pressures on bus capacity immediately around Canada Water station could be reduced.

Table 5.4: Locations of peak demand on local bus services (2016)

Route	Direction towards	Busiest point	Busiest hour from	2016 frequency (buses per hour)	Buses per hour required to meet 2016 demand
1	Canada Water	Waterloo Station	17:49	7.5	6
1	Tottenham Court Road	Bricklayers Arms	07:34	7.5	7
47	Bellingham	Deptford	07:42	6	6
47	Shoreditch	Canada Water	17:29	6	5
188	North Greenwich	Waterloo Station	17:16	8	6
188	Russell Square	Waterloo Station	08:11	8	8
199	Canada Water	Surrey Quays	08:16	5	6
199	Catford	Lewisham High Street	17:34	5	4
225	Canada Water	Canada Water	07:57	4	3
225	Hither Green	Lewisham High Street	15:55	4	4
381	Peckham	London Bridge	17:28	6	4
381	Waterloo	Bermondsey Station	08:10	6	5
C10	Canada Water	Surrey Quays	08:12	8	5
C10	Victoria	Elephant and Castle	07:38	8	5
P12	Brockley	Peckham Rye	15:25	6	3
P12	Surrey Quays	Peckham High Street	16:13	6	3

River Services

- 5.3.17 Greenland Pier and Hilton Docklands Nelson Pier are the closest piers served by river passenger services. A range of services can be found including tourist leisure services and fast commuter services. Thames Clippers is currently the only provider of commuter services at these piers, with a fast service between Greenwich and Embankment from Greenland Pier and a ferry service between Doubletree Docklands and Canary Wharf. Details of these services are shown in Table 5.5.

Table 5.5: River services available from the site

Pier	Service	Route	AM peak hour (0800 – 0900) two-way frequency*
Greenland Pier	Thames Clipper RB1	Woolwich – North Greenwich – Greenland Pier – Canary Wharf – Tower – London Bridge – Bankside – Blackfriars – Embankment – Westminster	3 (westbound services only)
Doubletree Docklands	Thames Clipper RB4	Doubletree Docklands – Canary Wharf	6

